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**ABSTRACT**

This document presents the following monthly statistical data for the population of United States: (1) employment status; (2) characteristics of the unemployed; (3) characteristics of the employed and their job categories; (4) seasonally adjusted employment and unemployment; (5) national employment; (6) employment in states and areas; (7) national average hours worked and earnings; (8) hours and earnings in states and areas; (9) productivity data; and (10) state and area labor force. Among the employment and unemployment developments in February 1988 are the following: (1) the overall jobless rate was 5.6 percent, and the civilian worker rate was 5.7 percent, both slightly down from recent months; (2) nonagricultural payroll employment surged by 530,000; (3) total civilian employment rose by nearly 300,000; (4) the number of persons unemployed was 6.9 million, about the same as in January; (5) jobless rates were 4.9 percent for adult men, 5.2 for adult women, 15.4 for teenagers, 4.8 for Whites, 12.6 for Blacks, and 8.3 for Hispanics; (6) the median duration of unemployment was 6.4 weeks; (7) the proportion of the population with jobs was at a record 62.2 percent; (8) the civilian labor force grew to a level of 121.4 million; (9) the labor force participation rate was 66.0 percent; (10) total nonagricultural payroll employment rose by 530,000, to 104.3 million; (11) the average work week was 34.9 hours for production or nonsupervisory workers, 40.9 for manufacturing workers; (12) the Hourly Earnings Index was 176.5. Data are presented on 62 tables. Explanatory notes are included. (BJV)

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## EMPLOYMENT AND EARNINGS

March 1988

U.S. Department of Labor  
Bureau of Labor Statistics

In this issue  
1987 annual averages for national  
establishment survey data



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*Employment and Earnings* is prepared in the Office of Employment and Unemployment Statistics in collaboration with the Office of Publications. The data are collected by the Bureau of the Census (Department of Commerce) and State employment security agencies in cooperation with the Bureau of Labor Statistics. A brief description of the cooperative statistical programs of the BLS with these agencies is presented in the Explanatory Notes. The State agencies are listed on the inside back cover.

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## Calendar of Features

In addition to the monthly data appearing regularly in *Employment and Earnings*, special features appear in most of the issues as shown below.

### Household data

Annual averages	Jan
Union affiliation	Jan
Revised seasonally adjusted series	Jan Feb
Quarterly averages: Seasonally adjusted data: persons not in labor force; persons of Hispanic origin; Vietnam era veterans and nonveterans; family relationship data; weekly earnings data; and metropolitan nonmetropolitan and poverty nonpoverty area data	Jan Apr July Oct

### Establishment data

National annual averages	
Industry divisions (preliminary)	Jan
Industry detail (final)	Mar
Women employees (final)	Mar
National data revised to reflect new benchmarks and new seasonal adjustment factors	June
Revised historical national data	Supplement <sup>1</sup>
State and area annual averages	May
Area definitions	May

### State and area labor force data

Annual averages	May
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<sup>1</sup> The latest supplement was published in July 1987.

# Employment and Earnings

Vol. 35 No. 3 March 1988

Editors: Gloria Peterson Green, Rosalie K. Epstein

## Editors' Note

Because of budget reductions which affect the Bureau's Current Employment Statistics program, publication of employment, hours, earnings, and labor force data for a number of metropolitan areas has been suspended (tables B-8, C-8, and D-1). The Bureau regrets any inconvenience to data users.

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# MONTHLY HOUSEHOLD DATA

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# Employment and Unemployment Developments, February 1988

Employment growth was quite strong in February. The overall jobless rate was 5.6 percent, and the civilian worker rate was 5.7 percent. Both have edged down in recent months—by three-tenths of a percentage point since last October.

Nonagricultural payroll employment, as measured by the survey of business establishments, surged by 530,000 in February, following a relatively small increase in the prior month. Total civilian employment, as measured by the household survey, rose by nearly 300,000 over the month.

## Unemployment

The number of persons unemployed in February, at 6.9 million, seasonally adjusted, was about the same as in January. The civilian worker unemployment rate, at 5.7 percent, also showed little over-the-month change. However, it has edged down by three-tenths since last October and was nearly a full percentage point lower than a year ago.

Jobless rates for adult men (4.9 percent), adult women (5.2 percent), teenagers (15.4 percent), whites (4.8 percent), and blacks (12.6 percent) showed little change in February. After dipping in January, the Hispanic unemployment rate (8.3 percent) returned to the levels that generally prevailed in the latter half of last year. (See tables A-33 and A-34.)

The median duration of unemployment—6.4 weeks—was unchanged from January and was slightly lower than a year earlier. The number and proportion of the total unemployed who had lost their last jobs declined markedly over the past year. (See tables A-40 and A-41.)

## Civilian employment and the labor force

Total civilian employment rose by 280,000 in February to 114.4 million, seasonally adjusted, with almost the entire gain taking place among adult men. The proportion of the population with jobs was at a record 62.2 percent. Recent employment growth has been particularly strong in executive, administrative, and managerial occupations. Over the past year, employment in these occupations has accounted for more than a third of the 3 million growth in total civilian employment. (See tables A-33 and A-22.)

The civilian labor force grew to a level of 121.4 million in February, seasonally adjusted, with the labor force participation rate edging up to 66.0 percent. Since last February, the labor force has grown by 2.0 million, with nearly

two-thirds of the increase occurring among adult women. (See table A-33.)

## Industry payroll employment

Total nonagricultural payroll employment rose by 530,000 in February, seasonally adjusted, to a level of 104.3 million. This large gain, which followed a much smaller increase in January (175,000), occurred mostly in the service-producing sector. While construction also advanced, manufacturing was little changed. (See table B-4.)

Within the service-producing sector, employment in the services industry increased sharply (200,000), following a modest rise in January. Job gains were widespread, with health and business services rising by 60,000 and 55,000, respectively. Other industries with increases were retail trade, which rose by 110,000 after seasonal adjustment, and wholesale trade. Employment in finance, insurance, and real estate was little changed over the month, although the finance component declined by 10,000; this drop represents the first tangible impact on business payrolls of the October stock market crash.

In the goods-producing sector, construction jobs rose by 105,000 after seasonal adjustment, following a substantial decline in January. After showing large gains in the second half of 1987, manufacturing jobs were up only slightly for the second month in a row. Changes among the component industries were all quite small. Since last June, manufacturing payrolls have added 400,000 jobs. Mining was about unchanged in February.

## Weekly hours

The average workweek for all production or nonsupervisory workers on private nonagricultural payrolls increased 0.2 hour in February to 34.9 hours, seasonally adjusted. By contrast, the manufacturing workweek declined 0.2 hour to 40.9 hours, and factory overtime edged down 0.1 hour to 3.8 hours; both measures, however, were still relatively high by historical standards. (See table C-5.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonagricultural payrolls rose by 1.0 percent to 123.5 (1977=100), seasonally adjusted. The manufacturing index slipped to 95.3, reflecting the decline in the factory workweek. (See table C-6.)

## Hourly and weekly earnings

Average hourly earnings of private production or non-supervisory workers edged down by 0.2 percent in February, seasonally adjusted, while average weekly earnings rose 0.4 percent due to the increase in the workweek. Prior to seasonal adjustment, average hourly earnings inched down 1 cent to \$9.17, and average weekly earnings rose \$1.49 to \$317.28. (See tables C-1 and C-7.)

## The Hourly Earnings Index

The Hourly Earnings Index (HEI) was 176.5 (1977=100)

in February, seasonally adjusted, virtually unchanged from January. For the 12 months ended in February, the increase was 2.7 percent. In dollars of constant purchasing power, the HEI decreased 1.0 percent during the 12-month period ending in January. The HEI excludes the effects of two types of changes unrelated to underlying wage rate movements—fluctuations in manufacturing overtime and interindustry employment shifts. (See table C-7.)

NOTE: The hours and earnings sections of this analysis reflect corrections to the data subsequent to the issuance of the Employment Situation News Release: February 1988 (USDL 88-103), on March 4, 1988.

Scheduled Release Dates			
Employment and unemployment data are scheduled for initial release on the following dates:			
Reference month	Release date	Reference month	Release date
March	April 1	June	July 8
April	May 6	July	August 5
May	June 3	August	September 2



# HOUSEHOLD DATA HISTORICAL

## A-1. Employment status of the noninstitutional population 16 years and over, 1954 to date

(Numbers in thousands)

Year and month	Noninsti- tutional population	Labor force									Not in labor force
		Number	Percent of population	Employed					Unemployed		
				Total	Resident Armed Forces	Civilian		Number	Percent of labor force		
						Total	Agriculture			Nonagricultural industries	
Annual averages											
1954	110,463	65,785	59.6	62,251	2,142	60,109	6,205	53,904	3,532	5.4	44,678
1955	111,747	67,087	60.0	64,234	2,064	62,170	6,450	55,722	2,852	4.3	44,660
1956	1,2919	68,517	60.7	65,764	1,965	63,799	6,283	57,514	2,750	4.0	44,402
1957	114,213	68,877	60.3	66,019	1,948	64,071	5,947	58,123	2,859	4.2	45,336
1958	115,574	69,486	60.1	64,883	1,847	63,036	5,586	57,450	4,602	6.6	46,088
1959	117,117	70,157	59.9	66,418	1,788	64,630	5,565	59,065	3,740	5.3	46,960
1960 <sup>1</sup>	119,106	71,489	60.0	67,639	1,861	65,778	5,458	60,318	3,852	5.4	47,617
1961	120,671	72,359	60.0	67,646	1,900	65,746	5,200	60,546	4,714	6.5	48,312
1962 <sup>1</sup>	122,214	72,675	59.5	68,763	2,061	66,702	4,944	61,759	3,911	5.4	49,539
1963	124,422	73,839	59.3	69,768	2,006	67,762	4,687	63,076	4,070	5.5	50,583
1964	126,503	75,109	59.4	71,323	2,018	69,305	4,523	64,782	3,786	5.0	51,394
1965	128,459	76,401	59.5	73,034	1,946	71,088	4,361	66,726	3,366	4.4	52,058
1966	130,180	77,892	59.8	75,017	2,122	72,895	3,979	68,915	2,875	3.7	52,288
1967	132,092	79,565	60.2	76,590	2,218	74,372	3,844	70,527	2,975	3.7	52,527
1968	134,281	80,990	60.3	78,173	2,253	75,920	3,817	72,103	2,817	3.5	53,291
1969	136,573	82,972	60.8	80,140	2,238	77,902	3,606	74,296	2,832	3.4	53,602
1970	139,203	84,889	61.0	80,796	2,118	78,678	3,463	75,215	4,093	4.8	54,315
1971	142,189	86,355	60.7	81,340	1,973	79,367	3,394	75,972	5,016	5.8	55,834
1972 <sup>1</sup>	145,939	88,847	60.9	83,966	1,813	82,153	3,484	78,669	4,882	5.5	57,091
1973 <sup>1</sup>	148,870	91,203	61.3	86,838	1,774	85,064	3,470	81,594	4,365	4.8	57,667
1974	151,841	93,670	61.7	88,515	1,721	86,794	3,515	83,279	5,156	5.5	58,171
1975	154,831	95,453	61.6	87,524	1,678	85,846	3,408	82,438	7,929	8.3	59,377
1976	157,818	97,826	62.0	90,420	1,668	88,752	3,331	85,421	7,406	7.6	59,991
1977	160,689	100,665	62.6	93,673	1,656	92,017	3,283	88,734	6,991	6.9	60,025
1978 <sup>1</sup>	163,541	103,882	63.5	97,679	1,631	96,048	3,387	92,661	6,202	6.0	59,659
1979	166,460	106,559	64.0	100,421	1,597	98,824	3,347	95,477	6,137	5.8	59,900
1980	169,349	108,544	64.1	100,907	1,604	99,303	3,364	95,938	7,637	7.0	60,806
1981	171,775	110,315	64.2	102,042	1,645	100,397	3,368	97,030	8,273	7.5	61,460
1982	173,939	111,872	64.3	101,194	1,668	99,526	3,401	96,125	10,678	9.5	62,067
1983	175,891	113,226	64.4	102,510	1,676	100,834	3,383	97,450	10,717	9.5	62,665
1984	178,080	115,241	64.7	106,702	1,697	105,005	3,321	101,685	8,539	7.4	62,839
1985	179,912	117,167	65.1	108,856	1,706	107,150	3,179	103,971	8,312	7.1	62,744
1986 <sup>1</sup>	182,293	119,540	65.6	111,303	1,706	109,597	3,163	106,434	8,237	6.9	62,752
1987	184,490	121,602	65.9	114,177	1,737	112,440	3,208	109,232	7,425	6.1	62,888
Monthly data, seasonally adjusted <sup>2</sup>											
1987:											
February	183,738	120,970	65.8	113,084	1,740	111,344	3,225	108,119	7,886	6.5	62,768
March	183,915	120,982	65.8	113,191	1,736	111,455	3,237	108,218	7,791	6.4	62,933
April	184,079	121,098	65.8	113,541	1,735	111,806	3,250	108,556	7,557	6.2	62,981
May	184,259	121,633	66.0	114,060	1,726	112,334	3,269	109,065	7,573	6.2	62,626
June	184,421	121,326	65.8	114,018	1,718	112,300	3,192	109,108	7,308	6.0	63,095
July	184,605	121,610	65.9	114,359	1,720	112,639	3,212	109,427	7,251	6.0	62,995
August	184,738	122,042	66.1	114,786	1,736	113,050	3,143	109,907	7,256	5.9	62,696
September	184,904	121,706	65.8	114,615	1,743	112,872	3,184	109,688	7,091	5.8	63,198
October	185,052	122,128	66.0	114,951	1,741	113,210	3,249	109,961	7,177	5.9	62,924
November	185,225	122,349	66.1	115,259	1,755	113,504	3,172	110,332	7,090	5.8	62,876
December	185,370	122,472	66.1	115,494	1,750	113,744	3,215	110,529	6,978	5.7	62,898
1988:											
January	185,571	122,924	66.2	115,878	1,749	114,129	3,293	110,836	7,046	5.7	62,647
February	185,705	123,084	66.3	116,145	1,736	114,409	3,228	111,182	6,938	5.6	62,621

<sup>1</sup> Not strictly comparable with prior years. For an explanation, see "Historical Comparability" under the Household Data section of the Explanatory Notes.

<sup>2</sup> The population and Armed Forces figures are not adjusted for

seasonal variation.

NOTE. Revisions of seasonally adjusted monthly and quarterly data (shown in tables A-1 through A-3 and A-32 through A-53) for the most recent 5-year period are made at the end of each calendar year.

HOUSEHOLD DATA  
HISTORICAL

A-2. Employment status of the noninstitutional population 16 years and over by sex, 1977 to date

(Numbers in thousands)

Sex, year, and month	Noninsti- tutional population	Labor force								Not in labor force	
		Number	Percent of population	Employed					Unemployed		
				Total	Resident Armed Forces	Civilian		Number	Percent of labor force		
						Total	Agriculture				Nonagricultural industries
Annual averages											
MEN											
1977 ..	76,756	59,959	78.1	56,291	1,563	54,728	2,671	52,057	3,667	6.1	16,797
1978 <sup>1</sup> ..	78,107	61,151	78.3	58,010	1,531	56,479	2,718	53,761	3,142	5.1	16,956
1979 ..	79,509	62,215	78.2	59,096	1,489	57,607	2,686	54,92*	3,120	5.0	17,293
1980 ..	80,877	62,932	77.8	58,665	1,479	57,186	2,709	54,477	4,267	6.8	17,945
1981 ..	82,023	63,486	77.4	58,909	1,512	57,397	2,700	54,697	4,577	7.2	18,537
1982 ..	83,052	63,979	77.0	57,800	1,529	56,271	2,736	53,534	6,179	9.7	19,073
1983 ..	84,064	64,580	76.8	58,320	1,533	56,787	2,704	54,083	6,260	9.7	19,484
1984 ..	85,156	65,386	76.8	60,642	1,551	59,091	2,668	56,423	4,744	7.3	19,771
1985 ..	86,025	65,967	76.7	61,447	1,556	59,891	2,535	57,356	4,521	6.9	20,058
1986 <sup>1</sup> ..	87,349	66,973	76.7	62,443	1,551	60,892	2,511	58,381	4,530	6.8	20,376
1987 ..	88,476	67,784	76.6	63,684	1,577	62,107	2,543	59,564	4,101	6.1	20,692
Monthly data, seasonally adjusted <sup>2</sup>											
1987:											
February ..	88,099	67,655	76.8	63,281	1,584	61,697	2,545	59,152	4,374	6.5	20,444
March ..	88,186	67,590	76.6	63,263	1,575	61,688	2,582	59,106	4,327	6.4	20,596
April ..	88,271	67,604	76.6	63,390	1,575	61,815	2,608	59,207	4,214	6.2	20,667
May ..	88,361	67,802	76.7	63,543	1,566	61,977	2,594	59,383	4,259	6.3	20,559
June ..	88,442	67,623	76.5	63,543	1,559	61,984	2,530	59,454	4,080	6.0	20,819
July ..	88,534	67,671	76.4	63,711	1,561	62,150	2,547	59,603	3,960	5.9	20,863
August ..	88,598	67,937	76.7	63,916	1,575	62,341	2,489	59,852	4,021	5.9	20,661
September ..	88,683	67,776	76.4	63,949	1,581	62,368	2,547	59,821	3,827	5.6	20,90*
October ..	88,756	67,947	76.6	64,048	1,580	62,468	2,569	59,899	3,899	5.7	20,809
November ..	88,849	68,019	76.6	64,174	1,593	62,581	2,491	60,090	3,845	5.7	20,830
December ..	88,924	68,030	76.5	64,245	1,589	62,656	2,523	60,133	3,785	5.6	20,894
1988:											
January ..	89,033	68,243	76.6	64,396	1,588	62,808	2,593	60,216	3,847	5.6	20,790
February ..	89,099	68,343	76.7	64,636	1,577	63,059	2,510	60,548	3,707	5.4	20,756
Annual averages											
WOMEN											
1977 ..	83,932	40,705	48.5	37,381	92	37,289	612	36,677	3,324	8.2	43,227
1978 <sup>1</sup> ..	85,434	42,731	50.0	39,669	100	39,569	669	38,900	3,061	7.2	42,703
1979 ..	86,951	44,343	51.0	41,325	108	41,217	661	40,556	3,018	6.8	42,608
1980 ..	88,472	45,611	51.6	42,241	124	42,117	656	41,461	3,370	7.4	42,861
1981 ..	89,751	46,829	52.2	43,133	133	43,000	667	42,333	3,696	7.9	42,922
1982 ..	90,687	47,894	52.7	43,395	139	43,256	665	42,591	4,499	9.4	42,993
1983 ..	91,827	48,646	53.0	44,190	143	44,047	680	43,367	4,457	9.2	43,181
1984 ..	92,924	49,855	53.7	46,061	146	45,915	653	45,262	3,794	7.6	43,068
1985 ..	93,886	51,200	54.5	47,409	150	47,259	644	46,615	3,791	7.4	42,686
1986 <sup>1</sup> ..	94,944	52,568	55.4	48,861	155	48,706	652	48,054	3,707	7.1	42,376
1987 ..	96,013	53,816	56.1	50,494	160	50,334	666	49,668	3,324	6.2	42,195
Monthly data, seasonally adjusted <sup>2</sup>											
1987:											
February ..	95,639	53,315	55.7	49,803	156	49,647	680	48,967	3,512	6.6	42,324
March ..	95,729	53,392	55.8	49,928	161	49,767	655	49,112	3,464	6.5	42,337
April ..	95,808	53,494	55.8	50,151	160	49,991	642	49,349	3,343	6.2	42,314
May ..	95,898	53,831	56.1	50,517	160	50,357	675	49,682	3,314	6.2	42,067
June ..	95,979	53,703	56.0	50,475	159	50,316	662	49,654	3,228	6.0	42,276
July ..	96,071	53,939	56.1	50,648	159	50,489	665	49,824	3,291	6.1	42,132
August ..	96,140	54,105	56.3	50,870	161	50,709	654	50,055	3,235	6.0	42,035
September ..	96,221	53,930	56.0	50,668	162	50,504	637	49,867	3,264	6.1	42,291
October ..	96,295	54,181	56.3	50,903	161	50,742	680	50,062	3,278	6.1	42,114
November ..	96,378	54,330	56.4	51,085	162	50,923	681	50,242	3,245	6.0	42,046
December ..	96,448	54,442	56.4	51,249	161	51,088	692	50,396	3,193	5.9	42,004
1988:											
January ..	96,538	54,681	56.6	51,482	161	51,321	700	50,621	3,200	5.9	41,857
February ..	96,606	54,740	56.7	51,509	159	51,350	717	50,633	3,231	5.9	41,866

<sup>1</sup> Not strictly comparable with prior years. For an explanation, see "Historical Comparability" under the Household Data section of the Explanatory Notes

<sup>2</sup> The population and Armed Forces figures are not adjusted for seasonal variation

# HOUSEHOLD DATA HISTORICAL

## A-3. Employment status of the civilian noninstitutional population 16 years and over, 1954 to date

(Numbers in thousands)

Year and month	Civilian noninstitutional population	Civilian labor force				Unemployment rates		
		Total	Percent of population	Employed	Unemployed	Total	Men	Women
Annual averages								
1954	108,321	63,643	58.8	60,109	3,532	5.5	5.3	6.0
1955	109,683	65,023	59.3	62,170	2,852	4.4	4.2	4.9
1956	110,954	66,552	60.0	63,799	2,750	4.1	3.8	4.8
1957	112,265	66,929	59.6	64,071	2,859	4.3	4.1	4.7
1958	113,727	67,639	59.5	63,036	4,602	6.8	6.8	6.8
1959	115,329	68,369	59.3	64,630	3,740	5.5	5.2	5.9
1960 <sup>1</sup>	117,245	69,628	59.4	65,778	3,852	5.5	5.4	5.9
1961	118,771	70,459	59.3	65,746	4,714	6.7	6.4	7.2
1962 <sup>1</sup>	120,153	70,614	58.8	66,702	3,911	5.5	5.2	6.2
1963	122,416	71,833	58.7	67,762	4,070	5.7	5.2	6.5
1964	124,485	73,091	58.7	69,305	3,786	5.2	4.6	6.2
1965	126,513	74,455	58.9	71,088	3,366	4.5	4.0	5.5
1966	128,058	75,770	59.2	72,895	2,875	3.8	3.2	4.8
1967	129,874	77,347	59.6	74,372	2,975	3.8	3.1	5.2
1968	132,028	78,737	59.6	75,920	2,817	3.6	2.9	4.8
1969	134,335	80,734	60.1	77,902	2,832	3.5	2.8	4.7
1970	137,085	82,771	60.4	78,678	4,093	4.9	4.4	5.9
1971	140,216	84,382	60.2	79,367	5,016	5.9	5.3	6.9
1972 <sup>1</sup>	144,126	87,034	60.4	82,153	4,882	5.6	5.0	6.6
1973 <sup>1</sup>	147,096	89,429	60.8	85,064	4,365	4.9	4.2	6.0
1974	150,120	91,949	61.3	86,794	5,156	5.6	4.9	6.7
1975	153,153	93,775	61.2	85,846	7,929	5.5	7.9	9.3
1976	156,150	96,158	61.6	88,752	7,406	7.7	7.1	8.6
1977	159,033	99,009	62.3	92,017	6,991	7.1	6.3	8.2
1978 <sup>1</sup>	161,910	102,251	63.2	96,048	6,202	6.1	5.3	7.2
1979	164,863	104,962	63.7	98,824	6,137	5.8	5.1	6.8
1980	167,745	106,940	63.8	99,303	7,637	7.1	6.9	7.4
1981	170,130	108,670	63.9	100,397	8,273	7.6	7.4	7.9
1982	172,271	110,204	64.0	99,526	10,678	9.7	9.9	9.4
1983	174,215	111,550	64.0	100,834	10,717	9.6	9.9	9.2
1984	176,383	113,544	64.4	105,005	8,539	7.5	7.4	7.6
1985	178,206	115,461	64.8	107,150	8,312	7.2	7.0	7.4
1986 <sup>1</sup>	180,587	117,834	65.3	109,597	8,237	7.0	6.9	7.1
1987	182,753	119,865	65.6	112,440	7,425	6.2	6.2	6.2
Monthly data, seasonally adjusted <sup>2</sup>								
1987:								
February	181,998	119,230	65.5	111,344	7,886	6.6	6.6	6.6
March	182,179	119,246	65.5	111,455	7,791	6.5	6.6	6.5
April	182,344	119,363	65.5	111,806	7,557	6.3	6.4	6.3
May	182,533	119,907	65.7	112,334	7,573	6.3	6.4	6.2
June	182,703	119,608	65.5	112,300	7,308	6.1	6.2	6.0
July	182,885	119,890	65.6	112,639	7,251	6.0	6.0	6.1
August	183,002	120,306	65.7	113,050	7,256	6.0	6.1	6.0
September	183,161	119,963	65.5	112,872	7,091	5.9	5.8	6.1
October	183,311	120,387	65.7	113,210	7,177	6.0	5.9	6.1
November	183,470	120,594	65.7	113,504	7,090	5.9	5.8	6.0
December	183,620	120,722	65.7	113,744	6,978	5.8	5.7	5.9
1988:								
January	183,822	121,175	65.9	114,129	7,046	5.8	5.8	5.9
February	183,969	121,348	66.0	114,409	6,938	5.7	5.6	5.9

<sup>1</sup> Not strictly comparable with prior years. For an explanation, see "Historical Comparability" under the Household Data section of the

Explanatory Notes.

<sup>2</sup> The population figures are not adjusted for seasonal variation

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-4. Employment status of the civilian noninstitutional population by age, sex, and race**

(Numbers in thousands)

Age, sex, and race	February 1988										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
<b>TOTAL</b>											
16 years and over . . . . .	183,969	119,942	65.2	112,460	7,482	6.2	64,026	28,046	9,564	2,968	23,448
16 to 19 years . . . . .	14,588	7,331	50.2	6,120	1,211	16.5	7,258	391	6,351	22	494
16 to 17 years . . . . .	7,406	2,904	39.2	2,375	530	18.2	4,502	89	4,229	2	182
18 to 19 years . . . . .	7,182	4,426	61.6	3,745	681	15.4	2,756	302	2,122	19	312
20 to 24 years . . . . .	18,589	14,455	77.8	13,049	1,406	9.7	4,134	1,419	2,003	82	629
25 to 54 years . . . . .	100,611	83,182	82.7	78,853	4,328	5.2	17,428	12,086	1,165	1,095	3,085
25 to 34 years . . . . .	42,531	35,374	83.2	33,211	2,163	6.1	7,157	5,038	784	280	1,055
25 to 29 years . . . . .	21,356	17,822	83.5	16,729	1,093	6.1	3,534	2,381	509	104	541
30 to 34 years . . . . .	21,174	17,551	82.9	16,482	1,069	6.1	3,622	2,657	275	177	513
35 to 44 years . . . . .	34,407	28,964	84.2	27,580	1,384	4.8	5,443	3,799	313	354	76
35 to 39 years . . . . .	18,722	15,736	84.1	14,916	820	5.2	2,985	2,170	193	162	478
40 to 44 years . . . . .	15,686	13,227	84.3	12,664	564	4.3	2,459	1,647	121	192	499
45 to 54 years . . . . .	23,672	18,844	79.6	18,062	782	4.1	4,828	3,249	66	460	1,052
45 to 49 years . . . . .	12,685	10,455	82.4	9,993	461	4.4	2,230	1,545	35	201	448
50 to 54 years . . . . .	10,987	8,389	76.4	8,069	320	3.8	2,597	1,704	31	258	604
55 to 64 years . . . . .	21,716	11,789	54.3	11,341	448	3.8	9,927	4,957	12	638	4,310
55 to 59 years . . . . .	10,924	7,134	65.3	6,839	296	4.1	3,790	2,161	16	336	1,277
60 to 64 years . . . . .	10,791	4,654	43.1	4,502	152	3.3	6,137	2,796	6	302	3,034
65 years and over . . . . .	28,466	3,186	11.2	3,096	90	2.8	25,280	9,193	23	1,133	14,931
65 to 69 years . . . . .	9,811	1,900	19.4	1,840	59	3.1	7,911	2,983	9	285	4,634
70 to 74 years . . . . .	7,651	822	10.7	801	21	2.6	6,828	2,543	5	226	4,055
75 years and over . . . . .	11,004	464	4.2	454	10	2.2	10,540	3,667	9	621	6,242
<b>Men</b>											
16 years and over . . . . .	87,522	65,907	75.3	61,675	4,232	6.4	21,615	500	4,888	1,592	14,635
16 to 19 years . . . . .	7,319	3,702	50.6	3,048	654	17.7	3,617	21	3,302	12	282
16 to 17 years . . . . .	3,781	1,463	38.7	1,192	271	18.5	2,318	7	2,221	-	90
18 to 19 years . . . . .	3,538	2,239	63.3	1,857	383	17.1	1,299	14	1,081	12	192
20 to 24 years . . . . .	9,016	7,482	83.0	6,664	817	10.9	1,535	34	1,087	61	352
25 to 54 years . . . . .	49,174	45,945	93.4	43,524	2,421	5.3	3,227	170	492	696	1,871
25 to 34 years . . . . .	20,888	19,645	94.1	18,429	1,216	6.2	1,240	66	371	173	630
25 to 29 years . . . . .	10,470	9,794	93.5	9,182	612	6.3	676	28	254	68	327
30 to 34 years . . . . .	10,415	9,851	94.6	9,247	604	6.1	564	38	117	106	303
35 to 44 years . . . . .	16,818	15,804	94.0	15,064	740	4.7	1,013	53	101	243	617
35 to 39 years . . . . .	9,196	8,672	94.3	8,202	470	5.4	524	20	66	121	317
40 to 44 years . . . . .	7,622	7,132	93.6	6,862	270	3.8	490	32	36	122	300
45 to 54 years . . . . .	11,470	10,496	91.5	10,031	464	4.4	974	52	19	280	624
45 to 49 years . . . . .	6,166	5,749	93.2	5,489	260	4.5	417	24	7	132	253
50 to 54 years . . . . .	5,304	4,746	89.5	4,542	204	4.3	557	28	12	147	370
55 to 64 years . . . . .	10,227	6,886	67.3	6,596	289	4.2	3,341	88	7	346	2,900
55 to 59 years . . . . .	5,208	4,144	79.6	3,957	187	4.5	1,065	39	5	195	825
60 to 64 years . . . . .	5,018	2,742	54.6	2,640	102	3.7	2,276	49	2	151	2,075
65 years and over . . . . .	11,787	1,892	16.1	1,841	51	2.7	9,895	186	-	477	9,231
65 to 69 years . . . . .	4,452	1,113	25.0	1,080	32	2.9	3,339	42	-	169	3,128
70 to 74 years . . . . .	3,284	491	15.0	476	15	3.1	2,792	50	-	114	2,628
75 years and over . . . . .	4,051	288	7.1	284	4	1.5	3,763	94	-	194	3,475
<b>Women</b>											
16 years and over . . . . .	96,447	54,036	56.0	50,785	3,250	6.0	42,411	27,546	4,676	1,376	8,813
16 to 19 years . . . . .	7,269	3,629	49.9	3,072	557	15.3	3,641	370	3,049	10	212
16 to 17 years . . . . .	3,626	1,442	39.8	1,183	258	17.9	2,184	82	2,008	2	92
18 to 19 years . . . . .	3,644	2,187	60.0	1,889	298	13.6	1,456	288	1,041	7	120
20 to 24 years . . . . .	9,573	6,973	72.8	6,385	588	8.4	2,599	1,385	916	21	278
25 to 54 years . . . . .	51,437	37,236	72.4	35,329	1,907	5.1	14,201	11,916	673	399	1,214
25 to 34 years . . . . .	21,645	15,728	72.7	14,782	946	6.0	5,917	4,972	413	107	425
25 to 29 years . . . . .	10,886	8,028	73.7	7,547	481	6.0	2,858	2,353	255	36	214
30 to 34 years . . . . .	10,759	7,700	71.6	7,235	465	6.0	3,058	2,619	158	71	210
35 to 44 years . . . . .	17,590	13,160	74.8	12,516	644	4.9	4,430	3,747	212	112	360
35 to 39 years . . . . .	9,526	7,064	74.2	6,714	350	5.0	2,461	2,132	127	41	161
40 to 44 years . . . . .	8,064	6,095	75.6	5,802	294	4.8	1,969	1,615	85	70	199
45 to 54 years . . . . .	12,202	8,348	68.4	8,031	317	3.8	3,854	3,197	47	180	429
45 to 49 years . . . . .	6,519	4,706	72.2	4,504	201	4.3	1,813	1,521	28	69	195
50 to 54 years . . . . .	5,683	3,643	64.1	3,527	116	3.2	2,040	1,676	19	111	234
55 to 64 years . . . . .	11,489	4,903	42.7	4,744	158	3.2	6,586	4,869	15	292	1,410
55 to 59 years . . . . .	5,716	2,991	52.3	2,882	109	3.6	2,725	2,122	11	141	451
60 to 64 years . . . . .	5,773	1,912	33.1	1,862	50	2.6	3,861	2,747	4	151	959
65 years and over . . . . .	16,679	1,294	7.8	1,255	39	3.0	15,385	9,006	23	655	5,700
65 to 69 years . . . . .	5,359	787	14.7	760	27	3.4	4,572	2,941	9	116	1,506
70 to 74 years . . . . .	4,367	331	7.6	325	6	1.8	4,036	2,493	5	112	1,427
75 years and over . . . . .	6,953	176	2.5	170	6	3.5	6,777	3,573	9	427	2,767

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-4. Employment status of the civilian noninstitutional population by age, sex, and race—Continued**

(Numbers in thousands)

Age, sex, and race	Civilian noninstitutional population	February 1988										
		Civilian labor force					Not in labor force					
		Total	Percent of population	Emp'ed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons	
					Number	Percent of labor force						
WHITE												
18 years and over	157,773	103,398	65.5	97,819	5,579	5.4	54,375	24,527	7,311	2,220	20,317	
18 to 19 years	11,885	6,381	53.7	5,488	893	14.0	5,504	304	4,843	15	343	
16 to 17 years	6,005	2,559	42.6	2,551	408	16.0	3,446	75	3,227	1	144	
18 to 19 years	5,680	3,822	85.0	3,337	485	12.7	2,057	228	1,818	14	199	
20 to 24 years	15,459	12,305	79.6	11,304	1,000	8.1	3,155	1,098	1,578	85	415	
25 to 54 years	85,742	71,428	83.3	68,187	3,240	4.5	14,318	10,319	851	789	2,357	
25 to 34 years	35,826	30,095	84.0	28,551	1,544	5.1	5,731	4,178	585	198	770	
25 to 29 years	17,932	15,139	84.4	14,354	785	5.2	2,793	1,958	384	78	375	
30 to 34 years	17,894	14,958	83.6	14,198	759	5.1	2,938	2,219	201	123	394	
35 to 44 years	29,531	25,018	84.7	23,931	1,096	4.3	4,514	3,298	215	249	753	
35 to 39 years	15,913	13,451	84.5	12,814	638	7.8	2,462	1,847	132	117	368	
40 to 44 years	13,617	11,565	84.9	11,117	448	3.9	2,052	1,446	82	131	385	
45 to 54 years	20,385	16,314	80.0	15,705	609	3.7	4,071	2,843	51	343	834	
45 to 49 years	10,910	9,049	82.9	8,688	361	4.0	1,861	1,343	27	157	339	
50 to 54 years	9,475	7,266	76.7	7,017	249	5.0	2,210	1,532	24	168	495	
55 to 64 years	19,095	10,442	54.7	10,065	377	3.6	8,653	4,408	19	472	3,754	
55 to 59 years	9,528	6,293	66.0	6,050	243	3.9	3,235	1,896	13	248	1,080	
60 to 64 years	9,567	4,149	43.4	4,015	134	3.2	5,418	2,512	6	227	2,873	
65 years and over	25,591	2,841	11.1	2,775	70	2.4	22,747	8,398	21	878	13,449	
65 to 69 years	8,746	1,683	19.2	1,636	46	2.7	7,063	2,701	7	206	4,149	
70 to 74 years	6,891	740	10.7	721	18	2.4	6,150	2,312	5	174	3,858	
75 years and over	9,955	422	4.2	417	5	1.2	9,534	3,385	9	488	5,842	
Men												
16 years and over	75,626	57,506	76.0	54,310	3,196	5.6	18,120	382	3,749	1,237	12,752	
16 to 19 years	5,984	3,238	54.1	2,759	479	14.8	2,747	13	2,520	8	207	
16 to 17 years	3,072	1,287	41.9	1,070	217	16.9	1,785	5	1,706	-	75	
18 to 19 years	2,912	1,951	67.0	1,689	262	13.4	961	8	815	8	132	
20 to 24 years	7,557	6,371	84.3	5,797	573	9.0	1,186	18	877	52	239	
25 to 54 years	42,421	40,025	94.4	38,173	1,853	4.8	2,395	125	348	518	1,404	
25 to 34 years	17,841	18,957	95.0	16,036	921	5.4	884	41	270	123	450	
25 to 29 years	8,905	8,437	94.7	7,969	468	5.6	466	19	183	47	219	
30 to 34 years	8,936	8,520	95.3	8,068	453	5.3	416	22	87	78	230	
35 to 44 years	14,587	13,863	95.0	13,291	573	4.1	733	49	81	187	458	
35 to 39 years	7,890	7,511	95.2	7,150	362	4.8	379	18	41	88	233	
40 to 44 years	6,706	8,352	94.7	6,141	211	3.3	354	31	20	81	223	
45 to 54 years	9,983	9,205	92.2	8,846	359	3.9	778	35	17	228	498	
45 to 49 years	5,359	5,041	94.1	4,837	204	4.0	318	14	8	102	195	
50 to 54 years	4,824	4,164	90.1	4,009	155	3.7	460	21	10	128	303	
55 to 64 years	9,043	6,166	68.2	5,911	254	4.1	2,877	68	4	271	2,537	
55 to 59 years	4,570	3,692	80.8	3,532	159	4.3	878	27	2	151	898	
60 to 64 years	4,473	2,474	55.3	2,379	95	3.8	1,999	39	2	120	1,838	
65 years and over	10,622	1,706	16.1	1,870	37	2.1	8,915	160	-	390	8,365	
65 to 69 years	3,991	991	24.8	989	21	2.1	3,000	32	-	134	2,834	
70 to 74 years	2,973	447	15.0	434	12	2.7	2,525	40	-	93	2,392	
75 years and over	3,858	289	7.4	286	3	1.0	3,380	88	-	163	3,139	
Women												
16 years and over	82,148	45,862	55.9	43,509	2,383	5.2	38,255	24,145	3,582	982	7,585	
16 to 19 years	5,901	3,143	53.3	2,729	414	13.2	2,757	290	2,322	8	136	
16 to 17 years	2,933	1,272	43.4	1,081	191	15.1	1,881	70	1,521	1	69	
18 to 19 years	2,967	1,871	83.1	1,848	223	11.1	1,098	220	801	8	87	
20 to 24 years	7,903	5,934	75.1	5,507	427	7.1	1,969	1,080	701	13	175	
25 to 54 years	43,321	31,401	72.5	30,014	1,387	4.4	11,921	10,194	503	271	953	
25 to 34 years	17,685	13,138	73.1	12,515	823	4.7	4,847	4,136	315	75	320	
25 to 29 years	9,027	8,702	74.2	8,385	317	4.7	2,325	1,939	201	29	158	
30 to 34 years	8,958	8,436	71.8	8,130	306	4.8	2,522	2,197	114	47	164	
35 to 44 years	14,934	11,153	74.7	10,840	513	4.6	3,781	3,249	154	81	297	
35 to 39 years	8,023	5,940	74.0	5,611	278	4.6	2,083	1,826	91	31	135	
40 to 44 years	6,911	5,213	75.4	4,976	237	4.5	1,898	1,423	62	50	162	
45 to 54 years	10,402	7,109	68.3	6,859	251	3.5	3,293	2,809	34	115	338	
45 to 49 years	5,551	4,008	72.2	3,851	157	3.9	1,543	1,328	19	55	144	
50 to 54 years	4,851	3,102	63.9	3,008	94	3.0	1,750	1,483	14	60	192	
55 to 64 years	10,052	4,276	42.5	4,154	122	2.9	5,778	4,342	15	201	1,217	
55 to 59 years	4,958	2,601	52.5	2,517	84	3.2	2,357	1,889	11	95	382	
60 to 64 years	5,094	1,875	32.9	1,637	38	2.3	3,419	2,473	4	106	835	
65 years and over	14,970	1,138	7.8	1,105	33	2.9	13,832	8,238	21	489	5,084	
65 to 69 years	4,755	692	14.8	687	25	3.8	4,063	2,689	7	72	1,315	
70 to 74 years	3,918	293	7.5	287	6	2.0	3,825	2,272	5	81	1,266	
75 years and over	8,297	153	2.4	151	2	1.3	8,144	3,297	9	335	2,503	



**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-4. Employment status of the civilian noninstitutional population by age, sex, and race.—Continued**

(Numbers in thousands)

February 1988											
Age, sex, and race	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
BLACK											
16 years and over	20,569	12,965	63.0	11,288	1,678	12.9	7,603	2,645	1,677	678	2,604
16 to 19 years	2,173	757	34.8	473	284	37.5	1,416	66	1,218	7	125
16 to 17 years	1,133	267	23.6	164	103	38.5	866	10	827	1	28
18 to 19 years	1,039	490	47.1	309	181	36.9	550	56	391	6	97
20 to 24 years	2,545	1,776	69.8	1,417	359	20.2	769	276	293	14	186
25 to 54 years	11,361	9,066	79.8	8,113	952	10.5	2,296	1,259	164	278	594
25 to 34 years	5,202	4,191	80.6	3,633	558	13.3	1,011	600	96	79	236
25 to 29 years	2,667	2,152	80.7	1,868	268	13.2	515	295	56	28	135
30 to 34 years	2,536	2,040	80.4	1,765	275	13.5	496	304	40	51	100
35 to 44 years	3,658	2,960	80.9	2,707	253	8.5	698	356	55	93	192
35 to 39 years	2,095	1,709	81.6	1,557	152	8.9	386	227	31	36	94
40 to 44 years	1,564	1,252	80.1	1,150	102	8.1	312	132	25	57	98
45 to 54 years	2,501	1,915	76.6	1,773	142	7.4	586	301	13	106	166
45 to 49 years	1,329	1,056	79.5	971	85	8.0	274	146	9	38	81
50 to 54 years	1,171	859	73.4	802	57	6.6	313	155	4	69	85
55 to 64 years	2,107	1,090	51.7	1,026	64	5.9	1,017	407	2	146	462
55 to 59 years	1,101	662	60.2	613	50	7.5	438	198	2	74	164
60 to 64 years	1,006	428	42.5	414	14	3.3	578	209	-	72	298
65 years and over	2,383	276	11.6	258	18	6.5	2,107	637	-	233	1,237
65 to 69 years	871	176	20.2	166	11	6.3	695	217	-	71	408
70 years and over	1,512	100	6.6	93	7	7.0	1,412	421	-	162	829
Men											
16 years and over	9,230	6,457	70.0	5,560	898	13.9	2,773	93	814	320	1,547
16 to 19 years	1,069	363	34.0	207	156	42.9	706	6	632	6	63
16 to 17 years	571	131	23.0	87	44	33.5	440	3	427	-	11
18 to 19 years	498	232	46.5	120	112	48.2	266	3	205	6	52
20 to 24 years	1,158	915	79.0	700	215	23.5	243	10	133	7	94
25 to 54 years	5,092	4,459	87.6	3,977	481	10.8	634	41	47	158	388
25 to 34 years	2,351	2,095	89.1	1,832	263	12.5	256	24	33	48	152
25 to 29 years	1,206	1,065	88.3	933	132	12.4	141	7	25	20	88
30 to 34 years	1,146	1,030	89.9	899	131	12.7	116	16	9	23	63
35 to 44 years	1,630	1,409	86.4	1,272	136	9.7	221	3	14	66	137
35 to 39 years	934	827	88.6	740	87	10.5	107	2	7	28	71
40 to 44 years	696	582	83.6	532	50	8.5	114	2	8	38	66
45 to 54 years	1,111	956	86.0	873	83	8.6	156	14	-	44	97
45 to 49 years	591	514	87.0	469	45	8.7	77	7	-	26	44
50 to 54 years	520	442	84.9	404	38	8.6	79	7	-	19	53
55 to 64 years	949	566	59.6	533	33	5.7	383	15	2	70	295
55 to 59 years	498	343	68.8	316	27	7.8	155	7	2	42	105
60 to 64 years	451	223	49.5	218	6	2.6	228	9	-	29	191
65 years and over	962	154	16.0	141	13	8.2	808	21	-	79	709
65 to 69 years	380	99	26.1	90	10	9.6	281	6	-	32	243
70 years and over	582	55	9.4	52	3	(1)	527	15	-	46	466
Women											
16 years and over	11,338	6,508	57.4	5,728	780	12.0	4,830	2,552	862	358	1,057
16 to 19 years	1,104	394	35.7	266	128	32.5	710	60	586	1	62
16 to 17 years	562	136	24.2	77	59	43.4	426	7	400	1	17
18 to 19 years	541	258	47.6	189	69	26.8	284	53	186	-	45
20 to 24 years	1,387	861	62.1	717	144	16.8	526	266	160	7	92
25 to 54 years	6,269	4,607	73.5	4,136	471	10.2	1,662	1,218	117	120	208
25 to 34 years	2,851	2,096	73.5	1,801	295	14.1	754	576	63	31	84
25 to 29 years	1,461	1,087	74.4	935	152	14.0	374	288	31	8	47
30 to 34 years	1,390	1,010	72.7	866	144	14.2	380	288	31	23	37
35 to 44 years	2,028	1,551	76.5	1,435	117	7.5	477	355	41	27	55
35 to 39 years	1,161	882	75.9	817	65	7.3	279	225	24	8	23
40 to 44 years	868	670	77.2	618	52	7.7	198	130	17	19	32
45 to 54 years	1,390	959	69.0	900	59	6.2	431	287	13	62	69
45 to 49 years	738	542	73.4	502	40	7.4	197	139	5	12	37
50 to 54 years	651	417	64.1	398	19	4.5	234	148	4	50	32
55 to 64 years	1,158	524	45.3	493	31	6.0	634	392	-	76	167
55 to 59 years	603	320	53.0	297	23	7.2	283	191	-	33	59
60 to 64 years	555	204	36.8	196	8	4.1	351	200	-	43	107
65 years and over	1,421	122	8.6	117	5	4.5	1,299	616	-	154	528
65 to 69 years	491	77	15.7	76	1	1.7	414	211	-	39	165
70 years and over	930	45	4.9	41	4	(1)	885	406	-	116	363

<sup>1</sup> Data not shown where base is less than 75,000



**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-5. Employment status of the black-and-other civilian noninstitutional population by age and sex**

(Numbers in thousands)

February 1968									
Age and sex	Civilian noninstitutional population	Civilian labor force							Not in labor force
		Total	Percent of population	Employed			Unemployed		
				Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
TOTAL									
16 years and over ..	26,196	16,544	63.2	14,641	166	14,474	1,904	11.5	9,652
16 to 19 years .....	2,703	949	35.1	632	4	628	318	33.4	1,754
16 to 17 years .....	1,401	345	24.7	224	-	224	121	35.2	1,055
18 to 19 years .....	1,302	604	46.4	408	3	404	196	32.5	698
20 to 24 years .....	3,130	2,150	68.7	1,745	15	1,730	405	18.8	979
25 to 54 years .....	14,868	11,757	79.1	10,667	92	10,573	1,089	9.3	3,113
25 to 34 years .....	6,705	5,279	73.7	4,660	48	4,612	618	11.7	1,426
25 to 29 years .....	3,424	2,683	78.4	2,375	24	2,350	308	11.5	741
30 to 34 years .....	3,281	1,401	42.7	2,286	24	2,262	309	22.1	684
35 to 44 years .....	4,877	3,948	81.0	3,649	23	3,626	298	7.6	929
35 to 39 years .....	2,808	2,286	81.4	2,102	11	2,092	183	8.0	523
40 to 44 years .....	2,069	1,662	80.3	1,546	13	1,535	115	6.9	407
45 to 54 years .....	3,287	2,530	77.0	2,358	22	2,336	172	6.8	757
45 to 49 years .....	1,775	1,406	79.2	1,306	6	1,300	100	7.1	368
50 to 54 years .....	1,512	1,124	74.3	1,052	16	1,035	72	6.4	388
55 to 64 years .....	2,621	1,347	51.4	1,276	26	1,250	71	5.3	1,274
55 to 59 years .....	1,396	842	60.3	789	18	770	53	6.3	555
60 to 64 years .....	1,225	505	41.3	487	7	480	18	3.6	719
65 years and over .....	2,875	342	11.9	321	29	293	21	6.1	2,533
65 to 69 years .....	1,066	217	20.4	204	13	191	13	6.0	848
70 to 74 years .....	760	81	10.7	80	16	64	1	1.2	678
75 years and over .....	1,049	43	4.1	37	-	37	6	(1)	1,006
Men									
16 years and over ..	11,896	8,401	70.6	7,364	144	7,220	1,037	12.3	3,495
16 to 19 years .....	1,335	464	34.8	289	4	285	175	37.7	871
16 to 17 years .....	709	176	24.9	122	-	122	54	30.9	532
18 to 19 years .....	626	288	46.0	167	4	164	120	41.9	338
20 to 24 years .....	1,459	1,111	76.1	867	10	857	244	22.0	349
25 to 54 years .....	6,753	5,920	87.7	5,352	81	5,270	568	9.6	833
25 to 34 years .....	3,045	2,688	88.3	2,393	45	2,348	295	11.0	357
25 to 29 years .....	1,585	1,357	86.7	1,213	24	1,189	144	10.6	208
30 to 34 years .....	1,480	1,331	90.0	1,180	21	1,159	151	11.4	148
35 to 44 years .....	2,221	1,941	87.4	1,774	17	1,756	167	8.6	280
35 to 39 years .....	1,305	1,161	88.9	1,052	7	1,046	108	9.3	145
40 to 44 years .....	916	780	85.2	721	11	711	59	7.5	136
45 to 54 years .....	1,487	1,291	86.8	1,185	19	1,166	105	8.2	196
45 to 49 years .....	907	708	78.7	652	6	646	56	7.9	98
50 to 54 years .....	680	583	85.7	533	13	520	49	8.5	97
55 to 64 years .....	1,184	720	60.8	685	23	662	35	4.9	463
55 to 59 years .....	639	452	70.8	424	16	408	26	6.2	186
60 to 64 years .....	545	268	49.2	261	7	254	7	2.6	277
65 years and over .....	1,165	186	15.9	171	26	145	15	7.9	980
65 to 69 years .....	462	122	26.5	111	13	98	11	9.2	339
70 to 74 years .....	311	43	13.8	42	13	29	1	(1)	267
75 years and over .....	393	20	5.1	18	-	18	2	(1)	373
Women									
16 years and over ..	14,301	8,144	56.9	7,277	22	7,255	867	10.6	6,157
16 to 19 years .....	1,368	485	35.5	343	-	343	143	29.4	883
16 to 17 years .....	692	169	24.4	102	-	102	67	39.7	523
18 to 19 years .....	676	316	46.7	240	-	241	76	23.9	360
20 to 24 years .....	1,670	1,039	62.2	878	5	873	161	15.5	631
25 to 54 years .....	8,115	5,837	71.9	5,315	11	5,303	521	8.9	2,280
25 to 34 years .....	3,660	2,590	70.8	2,267	3	2,264	323	12.5	1,070
25 to 29 years .....	1,859	1,326	71.3	1,162	-	1,161	164	12.4	533
30 to 34 years .....	1,801	1,264	70.2	1,106	3	1,103	158	12.0	536
35 to 44 years .....	2,655	2,007	75.6	1,875	5	1,870	131	6.5	649
35 to 39 years .....	1,503	1,125	74.8	1,050	4	1,046	75	6.6	378
40 to 44 years .....	1,153	682	76.5	825	2	824	56	6.4	271
45 to 54 years .....	1,800	1,239	68.8	1,172	3	1,169	67	5.4	561
45 to 49 years .....	968	698	72.1	654	-	654	44	6.4	270
50 to 54 years .....	632	541	65.1	519	3	515	23	4.2	291
55 to 64 years .....	1,437	627	43.6	590	3	588	36	5.8	811
55 to 59 years .....	758	389	51.4	365	3	362	25	6.3	368
60 to 64 years .....	679	237	34.9	226	-	226	11	4.8	442
65 years and over .....	1,709	156	9.1	150	3	147	6	3.9	1,553
65 to 69 years .....	604	95	15.7	93	-	93	2	1.8	509
70 to 74 years .....	449	38	8.5	38	3	35	-	(1)	411
75 years and over .....	656	23	3.5	19	-	19	4	(1)	633

<sup>1</sup> Data not shown where base is less than 75,000.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-6. Employment status of the civilian noninstitutional population by race, sex, and age**

(Numbers in thousands)

Employment status and race	Total		Men, 20 years and over		Women, 20 years and over		Both sexes, 16 to 19 years	
	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
<b>TOTAL</b>								
Civilian noninstitutional population .....	181,998	183,969	79,216	80,203	88,237	89,178	14,546	14,588
Civilian labor force .....	117,967	119,942	61,548	62,205	49,148	50,407	7,271	7,331
Percent of population .....	64.8	65.2	77.7	77.6	55.7	56.5	50.0	50.2
Employed .....	109,464	112,460	57,356	58,626	46,232	47,714	5,875	6,120
Agriculture .....	2,764	2,760	2,061	2,027	535	552	168	181
Nonagricultural industries .....	106,700	109,700	55,296	56,599	45,697	47,162	5,707	5,939
Unemployed .....	8,503	7,482	4,192	3,578	2,916	2,693	1,396	1,211
Unemployment rate .....	7.2	6.2	6.8	5.8	5.9	5.3	19.2	16.5
Not in labor force .....	64,031	64,026	17,668	17,998	39,089	38,771	7,275	7,258
<b>White</b>								
Civilian noninstitutional population .....	156,431	157,773	68,922	69,642	75,599	76,246	11,910	11,885
Civilian labor force .....	101,809	103,398	53,840	54,268	41,639	42,748	6,330	6,381
Percent of population .....	65.1	65.5	78.1	77.9	55.1	56.1	53.2	53.7
Employed .....	95,377	97,819	50,540	51,551	39,576	40,780	5,261	5,488
Agriculture .....	2,611	2,594	1,934	1,887	513	529	164	177
Nonagricultural industries .....	92,766	95,226	48,606	49,665	39,064	40,250	5,097	5,311
Unemployed .....	6,432	5,579	3,300	2,717	2,062	1,969	1,070	893
Unemployment rate .....	6.3	5.4	6.1	5.0	5.0	4.6	16.9	14.0
Not in labor force .....	54,622	54,375	15,083	15,374	33,960	33,497	5,579	5,504
<b>Black</b>								
Civilian noninstitutional population .....	20,218	20,569	8,009	8,161	10,061	10,235	2,148	2,173
Civilian labor force .....	12,696	12,965	5,927	6,094	5,991	6,114	778	757
Percent of population .....	62.8	63.0	74.0	74.7	59.5	59.7	36.2	34.8
Employed .....	10,872	11,288	5,166	5,352	5,218	5,462	488	473
Agriculture .....	113	134	94	120	15	12	4	2
Nonagricultural industries .....	10,759	11,154	5,073	5,233	5,202	5,450	484	472
Unemployed .....	1,824	1,678	761	742	773	652	290	284
Unemployment rate .....	14.4	12.9	12.8	12.2	12.9	10.7	37.2	37.5
Not in labor force .....	7,522	7,603	2,082	2,067	4,069	4,120	1,370	1,416

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-7. Employment status of the civilian noninstitutional population 16 to 24 years of age by school enrollment, years of school completed, sex, race, and Hispanic origin**

(Numbers in thousands)

Employment status, years of school completed, race, and Hispanic origin	February 1988									
	Civilian noninstitutional population	Civilian labor force								
		Total	Percent of population	Employed			Unemployed			
				Total	Full time <sup>1</sup>	Part time <sup>1</sup>	Total	Looking for full-time work	Looking for part-time work	Percent of labor force
TOTAL ENROLLED										
Total, 16 to 24 years .....	15,849	7,532	47.5	6,620	1,155	5,465	912	114	798	12.1
16 to 19 years .....	11,063	4,711	42.6	4,009	352	3,656	703	53	649	14.9
20 to 24 years ...	4,787	2,821	58.9	2,612	803	1,809	209	60	149	7.4
High school .....	8,517	3,430	40.3	2,848	164	2,684	582	42	540	17.0
College .....	7,333	4,102	55.9	3,772	991	2,781	330	72	258	8.0
Full-time students .....	6,269	3,146	50.2	2,871	364	2,507	275	32	243	8.7
Part-time students .....	1,064	956	89.9	901	627	274	55	40	15	5.8
Men, 16 to 24 years .....	8,108	3,729	46.0	3,239	569	2,671	490	73	416	13.1
16 to 19 years .....	5,674	2,368	41.7	1,985	184	1,801	383	29	354	16.2
20 to 24 years ....	2,433	1,361	55.9	1,255	385	870	106	45	62	7.8
High school .....	4,496	1,795	39.9	1,474	100	1,374	321	26	296	17.9
College .....	3,612	1,933	53.5	1,765	469	1,296	168	48	120	8.7
Full-time students ..	3,140	1,504	47.9	1,371	193	1,177	133	15	118	8.8
Part-time students .....	472	430	91.0	395	275	119	35	32	3	8.2
Women, 16 to 24 years ..	7,742	3,803	49.1	3,381	586	2,795	422	40	382	11.1
16 to 19 years .....	5,389	2,343	43.5	2,024	168	1,856	319	24	295	13.6
20 to 24 years .....	2,353	1,460	62.0	1,357	418	939	103	16	87	7.1
High school .....	4,021	1,635	40.7	1,374	64	1,310	261	16	245	15.9
College .....	3,721	2,168	58.3	2,006	522	1,485	162	24	137	7.5
Full-time students .....	3,129	1,642	52.5	1,500	170	1,330	142	17	125	8.6
Part-time students .....	592	526	88.9	506	351	155	20	7	12	3.8
White										
Total, 16 to 24 years .....	13,023	6,599	50.7	5,918	1,007	4,911	681	82	599	10.3
16 to 19 years .....	8,997	4,136	46.0	3,618	308	3,311	518	36	482	12.5
20 to 24 years .....	4,027	2,464	61.2	2,300	699	1,601	164	46	118	6.6
Men .....	6,664	3,263	49.0	2,892	514	2,378	372	60	312	11.4
Women .....	6,360	3,336	52.5	3,027	493	2,533	309	22	287	9.3
High school .....	6,796	2,993	44.0	2,585	140	2,445	428	29	399	14.3
College .....	6,227	3,606	57.9	3,353	867	2,486	253	53	200	7.0
Full-time students .....	5,321	2,780	52.3	2,578	322	2,256	202	16	186	7.3
Part-time students .....	906	826	91.1	775	545	230	51	37	14	6.2
Black										
Total, 16 to 24 years .....	2,127	664	31.2	463	105	358	201	30	171	30.2
16 to 19 years .....	1,631	437	26.8	272	31	241	165	17	148	37.8
20 to 24 years .....	496	227	45.9	192	74	117	36	13	23	15.8
Men .....	1,078	329	30.6	226	39	187	103	12	91	31.4
Women .....	1,050	335	31.9	237	66	171	97	18	80	29.1
High school .....	1,405	348	24.8	215	22	193	134	13	120	38.3
College .....	722	316	43.8	249	83	165	67	17	50	21.3
Full-time students .....	607	227	37.4	164	29	135	63	14	49	27.9
Part-time students .....	115	89	77.3	85	54	31	4	2	1	4.4
Hispanic origin										
Total, 16 to 24 years .....	1,201	501	41.7	405	101	304	96	21	75	19.2
16 to 19 years .....	863	260	32.4	221	29	192	59	5	54	21.0
20 to 24 years .....	338	221	65.6	184	72	112	38	16	22	17.0
Men .....	584	226	38.6	179	51	128	47	16	31	20.7
Women .....	617	276	44.7	226	50	176	50	5	45	18.0
High school .....	727	211	29.1	156	21	134	56	4	51	26.3
College .....	474	290	61.2	249	79	170	41	17	24	14.0
Full-time students .....	362	197	54.3	178	31	147	19	1	18	9.7
Part-time students .....	112	93	83.4	72	49	23	22	16	6	23.2

See footnotes at end of table

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-7. Employment status of the civilian noninstitutional population 16 to 24 years of age by school enrollment, years of school completed, sex, race, and Hispanic origin—Continued**

(Numbers in thousands)

Employment status, years of school completed, race, and Hispanic origin	February 1988									
	Civilian noninstitutional population	Civilian labor force								Percent of labor force
		Total	Percent of population	Employed			Unemployed			
				Total	Full time	Part time <sup>1</sup>	Total	Looking for full-time work	Looking for part-time work	
TOTAL NOT ENROLLED										
Total, 16 to 24 years .....	17,328	14,253	82.3	12,549	10,700	1,849	1,704	1,546	158	12.0
16 to 19 years .....	3,525	2,619	74.3	2,111	1,593	518	508	447	61	19.4
20 to 24 years .....	13,802	11,634	84.3	10,438	9,107	1,331	1,196	1,098	98	10.3
Less than 4 years of high school .....	4,106	2,663	64.8	2,063	1,627	435	600	541	59	22.5
4 years of high school .....	9,013	7,660	85.0	6,798	5,760	1,037	863	785	77	11.3
1 to 3 years of college .....	2,698	2,472	91.7	2,313	2,022	291	160	137	23	6.5
4 years of college or more .....	1,510	1,456	96.5	1,376	1,291	86	81	82	-	5.6
Men, 16 to 24 years .....	8,228	7,455	90.6	6,473	5,769	705	981	923	59	13.2
16 to 19 years .....	1,845	1,334	81.1	1,063	863	201	271	253	18	20.3
20 to 24 years .....	6,583	6,121	93.0	5,410	4,906	504	711	670	41	11.6
Less than 4 years of high school .....	2,098	1,695	80.8	1,323	1,100	223	372	351	21	22.0
4 years of high school .....	4,290	3,997	93.2	3,508	3,146	362	489	464	25	12.2
1 to 3 years of college .....	1,153	1,093	94.9	1,014	927	86	79	67	12	7.3
4 years of college or more .....	688	669	97.3	629	596	33	40	40	-	6.0
Women, 16 to 24 years .....	9,100	6,799	74.7	6,076	4,931	1,145	723	823	100	10.8
16 to 19 years .....	1,880	1,285	68.4	1,048	731	317	237	194	43	18.5
20 to 24 years .....	7,220	5,513	76.4	5,028	4,201	827	485	429	57	8.8
Less than 4 years of high school .....	2,009	968	48.2	740	528	212	228	191	37	23.6
4 years of high school .....	4,723	3,663	77.6	3,290	2,614	675	373	321	53	10.2
1 to 3 years of college .....	1,545	1,379	89.3	1,299	1,095	204	80	70	10	5.8
4 years of college or more .....	823	788	95.8	748	695	53	41	41	-	5.2
White										
Total, 16 to 24 years .....	14,321	12,086	84.4	10,874	9,370	1,504	1,212	1,087	126	10.0
16 to 19 years .....	2,889	2,245	77.7	1,870	1,429	441	375	331	44	16.7
20 to 24 years .....	11,432	9,841	86.1	9,004	7,942	1,063	837	755	81	8.5
Men .....	6,878	6,345	92.3	5,665	5,106	558	681	624	56	10.7
Women .....	7,443	5,741	77.1	5,209	4,264	946	532	462	69	9.3
Less than 4 years of high school .....	3,245	2,205	67.9	1,787	1,436	351	418	367	51	19.0
4 years of high school .....	7,465	6,490	86.9	5,869	5,022	847	621	561	60	9.6
1 to 3 years of college .....	2,251	2,075	92.2	1,966	1,743	224	109	93	16	5.2
4 years of college or more .....	1,360	1,317	96.8	1,252	1,171	82	65	65	-	4.9
Black										
Total, 16 to 24 years .....	2,590	1,889	72.1	1,427	1,134	292	442	412	30	23.7
16 to 19 years .....	541	320	59.2	201	132	70	119	102	18	37.1
20 to 24 years .....	2,049	1,569	75.8	1,225	1,003	223	323	310	14	20.9
Men .....	1,150	949	82.5	882	562	120	287	285	2	28.2
Women .....	1,441	920	83.9	745	572	173	175	148	27	19.0
Less than 4 years of high school .....	771	415	53.6	239	183	75	178	168	8	42.5
4 years of high school .....	1,343	1,022	78.1	808	643	188	214	199	15	20.9
1 to 3 years of college .....	384	324	89.0	281	233	48	43	37	8	13.4
4 years of college or more .....	113	108	95.5	99	96	3	9	9	-	8.1
Hispanic origin										
Total, 16 to 24 years .....	2,054	1,811	78.4	1,408	1,193	215	203	188	17	12.8
16 to 19 years .....	484	337	89.5	275	204	70	82	59	4	18.4
20 to 24 years .....	1,570	1,274	81.2	1,133	989	145	140	127	13	11.0
Men .....	1,058	962	91.1	837	734	103	125	118	9	13.0
Women .....	998	849	85.0	571	459	112	77	70	7	11.9
Less than 4 years of high school .....	917	660	72.0	548	449	97	114	104	11	17.3
4 years of high school .....	865	708	81.9	834	528	108	74	72	2	10.4
1 to 3 years of college .....	207	185	89.4	175	182	12	10	7	4	5.8
4 years of college or more .....	68	57	( <sup>2</sup> )	53	53	-	4	4	-	( <sup>2</sup> )

<sup>1</sup> Employed persons with a job but not at work and persons at work part time are distributed according to whether they usually work full or part time.

<sup>2</sup> Data not shown where base is less than 75,000.

NOTE: In the summer months, the educational attainment levels of youth not enrolled in school are increased by the temporary movement of high school and

college students into that group. Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-8. Employment status of male Vietnam-era veterans and nonveterans by age**

(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force							
	Feb. 1987	Feb. 1988	Total		Employed		Unemployed			
			Feb 1987	Feb. 1988	Feb. 1987	Feb 1988	Number		Percent of labor force	
							Feb. 1987	Feb 1988	Feb 1987	Feb 1988
VIETNAM-ERA VETERANS										
Total, 30 years and over .....	7,804	7,877	7,189	7,243	6,809	6,881	380	362	5.3	5.0
30 to 44 years .....	6,275	6,033	5,986	5,724	5,660	5,433	326	291	5.4	5.1
30 to 34 years .....	1,007	781	943	732	863	688	80	44	8.5	6.0
35 to 39 years .....	2,781	2,329	2,664	2,223	2,522	2,082	142	141	5.3	6.3
40 to 44 years .....	2,487	2,923	2,379	2,769	2,275	2,663	104	106	4.4	3.8
45 years and over .....	1,529	1,844	1,203	1,519	1,149	1,448	54	71	4.5	4.7
NONVETERANS										
Total, 30 to 44 years .....	19,078	20,071	18,053	18,873	16,966	17,905	1,087	968	6.0	5.1
30 to 34 years .....	8,728	9,001	8,293	8,529	7,743	8,027	550	502	6.6	5.9
35 to 39 years .....	6,026	6,637	5,707	6,223	5,384	5,901	323	322	5.7	5.2
40 to 44 years .....	4,324	4,433	4,053	4,121	3,839	3,977	214	144	5.3	3.5

NOTE: Male Vietnam-era veterans are men who served in the Armed Forces between August 5, 1964 and May 7, 1975. Nonveterans are men who have never served in the Armed Forces; published data

are limited to those 30 to 44 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-9. Employed and unemployed full- and part-time workers by sex, age, and race**

(In thousands)

Sex, age, and race	February 1988							
	Employed						Unemployed	
	Full time			Part time			Looking for full-time work	Looking for part-time work
	Total	Full-time schedules <sup>1</sup>	Part time for economic reasons, usually work full time	Total	Voluntary <sup>1</sup>	Part time for economic reasons, usually work part time		
<b>TOTAL</b>								
Total, 16 years and over . . . . .	92,353	90,438	1,915	20,107	16,645	3,462	5,990	1,492
16 to 19 years . . . . .	1,946	1,860	86	4,174	3,815	359	501	710
16 to 17 years . . . . .	209	200	9	2,165	2,107	58	101	428
18 to 19 years . . . . .	1,737	1,660	77	2,009	1,708	301	399	282
20 years and over . . . . .	90,407	88,578	1,829	15,932	12,830	3,102	5,490	782
20 to 24 years . . . . .	9,910	9,574	336	3,140	2,452	688	1,159	247
25 years and over . . . . .	80,497	79,004	1,493	12,793	10,379	2,414	4,330	536
25 to 54 years . . . . .	69,554	68,283	1,271	9,300	7,271	2,029	3,903	425
55 years and over . . . . .	10,944	10,721	223	3,493	3,108	385	427	111
<b>Men, 16 years and over</b> . . . . .	54,943	53,753	1,190	6,731	5,284	1,447	3,609	623
16 to 19 years . . . . .	1,047	1,000	47	2,001	1,851	150	282	372
20 years and over . . . . .	53,897	52,753	1,144	4,730	3,433	1,297	3,327	251
20 to 24 years . . . . .	5,291	5,081	210	1,373	1,036	337	714	103
25 years and over . . . . .	48,607	47,673	934	3,356	2,396	960	2,613	148
25 to 54 years . . . . .	41,614	40,821	793	1,912	1,123	789	2,320	100
55 years and over . . . . .	6,993	6,852	141	1,444	1,273	171	292	48
<b>Women, 16 years and over</b> . . . . .	37,410	36,685	725	13,375	11,361	2,014	2,381	869
16 to 19 years . . . . .	899	860	39	2,173	1,964	209	219	338
20 years and over . . . . .	36,511	35,825	686	11,203	9,398	1,805	2,163	531
20 to 24 years . . . . .	4,619	4,493	126	1,766	1,415	351	444	144
25 years and over . . . . .	31,893	31,333	560	9,436	7,982	1,454	1,718	386
25 to 54 years . . . . .	27,942	27,463	479	7,388	6,148	1,240	1,584	323
55 years and over . . . . .	3,952	3,870	82	2,049	1,835	214	134	63
<b>White</b>								
<b>Men, 16 years and over</b> . . . . .	48,490	47,455	1,035	5,821	4,635	1,186	2,708	488
16 to 19 years . . . . .	974	928	46	1,785	1,650	135	199	280
20 years and over . . . . .	47,516	46,527	989	4,035	2,984	1,051	2,509	208
20 to 24 years . . . . .	4,646	4,462	184	1,151	888	263	485	89
25 years and over . . . . .	42,871	42,065	806	2,883	2,096	787	2,023	119
25 to 54 years . . . . .	36,579	35,893	686	1,594	954	640	1,773	79
55 years and over . . . . .	6,292	6,172	120	1,290	1,143	147	250	40
<b>Women, 16 years and over</b> . . . . .	31,496	30,942	554	12,014	10,369	1,645	1,708	675
16 to 19 years . . . . .	762	729	33	1,967	1,796	171	168	246
20 years and over . . . . .	30,733	30,212	521	10,046	8,573	1,473	1,540	429
20 to 24 years . . . . .	3,995	3,893	102	1,511	1,237	274	317	110
25 years and over . . . . .	26,738	26,319	419	8,535	7,336	1,199	1,223	319
25 to 54 years . . . . .	23,292	22,943	349	6,722	5,693	1,029	1,121	266
55 years and over . . . . .	3,446	3,376	70	1,813	1,643	170	102	53
<b>Black</b>								
<b>Men, 16 years and over</b> . . . . .	4,902	4,775	127	658	440	218	780	117
16 to 19 years . . . . .	53	53	-	155	140	15	73	83
20 years and over . . . . .	4,849	4,722	127	503	300	203	707	34
20 to 24 years . . . . .	548	533	15	152	90	62	204	11
25 years and over . . . . .	4,301	4,190	111	352	211	141	504	24
25 to 54 years . . . . .	3,755	3,665	90	223	103	120	464	19
55 years and over . . . . .	546	525	21	129	108	21	40	5
<b>Women, 16 years and over</b> . . . . .	4,708	4,574	134	1,020	710	310	621	160
16 to 19 years . . . . .	109	104	5	156	123	33	47	81
20 years and over . . . . .	4,599	4,470	129	864	587	277	574	78
20 to 24 years . . . . .	529	514	15	188	121	67	119	26
25 years and over . . . . .	4,071	3,956	115	675	466	209	455	52
25 to 54 years . . . . .	3,660	3,555	105	476	307	169	426	44
55 years and over . . . . .	411	401	10	199	159	40	29	8

<sup>1</sup> Employed persons with a job but not at work are distributed according to whether they usually work full or part time



**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-10. Employment status of persons in families by family relationship**

(Numbers in thousands)

Family relationship	February 1988									
	Civilian labor force					Not in labor force				
	Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
				Number	Percent of labor force					
Total, 16 years and over <sup>1</sup> .....	97,004	65.6	90,991	6,013	6.2	50,969	22,828	8,748	2,126	17,267
Husbands .....	39,718	78.3	38,180	1,539	3.9	10,991	175	227	825	9,765
With employed wife .....	25,194	91.7	24,281	913	3.6	2,273	53	138	298	1,785
With unemployed wife .....	1,079	92.5	962	117	10.8	88	3	3	18	63
With wife not in labor force .....	13,446	60.9	12,937	509	3.8	8,630	119	86	508	7,917
Wives .....	28,633	56.5	27,467	1,166	4.1	22,076	18,035	333	332	3,377
With employed husband .....	25,243	66.1	24,281	962	3.8	12,937	11,595	282	122	938
With unemployed husband .....	1,030	66.9	913	117	11.3	509	446	12	15	38
With husband not in labor force .....	2,361	21.5	2,273	88	3.7	8,630	5,994	39	195	2,402
Relatives in married-couple families .....	12,817	61.2	11,346	1,471	11.5	8,109	753	5,788	277	1,291
16 to 19 years .....	4,688	49.5	4,068	620	13.2	4,792	93	4,447	13	240
20 to 24 years .....	4,774	75.2	4,259	515	10.8	1,578	111	1,224	38	205
25 years and over .....	3,355	65.9	3,019	336	10.0	1,779	549	117	226	846
Women who maintain families .....	6,579	61.5	6,004	575	8.7	4,126	2,766	229	236	895
Relatives in families maintained by women .....	5,471	58.4	4,551	920	16.8	3,902	714	1,784	301	1,102
16 to 19 years .....	1,349	44.5	984	365	27.1	1,681	78	1,440	8	158
20 to 24 years .....	1,548	73.6	1,277	271	17.5	555	121	263	21	150
25 years and over .....	2,574	60.7	2,290	284	11.0	1,666	515	81	272	796
Men who maintain families .....	2,050	74.7	1,903	147	7.2	695	41	44	87	523
Relatives in families maintained by men .....	1,735	61.9	1,540	195	11.3	1,070	344	343	68	315
16 to 19 years .....	325	53.9	254	71	21.9	278	19	235	-	24
20 to 24 years .....	448	78.1	409	39	8.7	125	16	76	3	30
25 years and over .....	962	59.1	877	85	8.8	667	309	32	65	261

<sup>1</sup> Excludes persons living alone or with nonrelatives, persons in families where the husband, wife, or other person maintaining the family is in the Armed Forces, and persons in unrelated subfamilies.

NOTE: Estimates shown in this table for husbands, wives, and women

who maintain families are somewhat different from marital status estimates shown in other tables in this publication because of differences in definitions and weighting patterns used in aggregating the data.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-11. Unemployed persons by marital status, race, age, and sex**

Marital status, race, and age	Men				Women			
	Thousands of persons		Unemployment rates		Thousands of persons		Unemployment rates	
	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
Total, 16 years and over .....	4,976	4,232	7.6	6.4	3,527	3,250	6.7	6.0
Married, spouse present .....	2,058	1,702	5.0	4.1	1,454	1,285	5.0	4.3
Widowed, divorced, or separated .....	598	577	9.1	8.6	724	726	7.1	6.9
Single (never married) .....	2,320	1,954	13.4	11.1	1,349	1,240	10.1	9.0
White, 16 years and over .....	3,921	3,196	6.9	5.6	2,511	2,383	5.6	5.2
Married, spouse present .....	1,756	1,425	4.7	3.8	1,192	1,073	4.6	4.1
Widowed, divorced, or separated .....	441	431	8.0	7.7	492	529	6.0	6.3
Single (never married) .....	1,724	1,340	11.9	9.1	827	781	7.7	7.0
Black, 16 years and over .....	909	898	14.4	13.9	915	780	14.3	12.0
Married, spouse present .....	230	215	7.4	6.8	213	166	8.8	6.9
Widowed, divorced, or separated .....	138	129	14.8	13.3	209	186	11.9	10.1
Single (never married) .....	541	553	23.9	23.9	494	428	22.2	18.9
Total, 25 years and over .....	3,171	2,761	5.9	5.0	2,210	2,105	5.3	4.8
Married, spouse present .....	1,850	1,542	4.7	3.9	1,208	1,062	4.5	3.9
Widowed, divorced, or separated .....	560	540	8.8	8.3	640	669	6.6	6.7
Single (never married) .....	761	660	9.6	8.1	362	373	6.5	6.2
White, 25 years and over .....	2,510	2,143	5.3	4.5	1,596	1,542	4.5	4.2
Married, spouse present .....	1,576	1,287	4.5	3.6	994	886	4.2	3.7
Widowed, divorced, or separated .....	412	408	7.8	7.5	421	482	5.4	6.0
Single (never married) .....	522	447	8.1	6.5	181	174	4.3	3.8
Black, 25 years and over .....	552	527	11.0	10.2	539	508	10.6	9.7
Married, spouse present .....	207	198	6.9	6.5	170	140	7.7	6.3
Widowed, divorced, or separated .....	128	120	14.0	12.5	197	176	11.6	9.9
Single (never married) .....	216	209	19.2	17.7	173	192	14.6	15.3

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-12. Unemployed persons by occupation and sex**

Occupation	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
Total, 16 years and over .....	8,503	7,482	7.2	6.2	7.6	6.4	6.7	6.0
Managenal and professional specialty .....	694	586	2.5	2.0	2.5	2.1	2.5	1.9
Executive, administrative, and managenal .....	360	348	2.8	2.5	2.6	2.6	3.0	2.3
Professional specialty .....	334	238	2.2	1.6	2.3	1.5	2.2	1.7
Technical, sales, and administrative support .....	1,680	1,502	4.6	4.1	4.2	3.3	4.9	4.5
Technicians and related support .....	135	113	4.1	3.2	4.9	2.8	3.3	3.7
Sales occupations .....	754	648	5.4	4.6	3.9	2.9	7.1	6.4
Administrative support, including clencial .....	791	741	4.2	3.9	4.6	4.2	4.1	3.8
Service occupations .....	1,373	1,311	8.5	8.0	8.0	8.2	8.8	7.8
Private household .....	71	67	7.2	7.0	( <sup>1</sup> )	( <sup>1</sup> )	6.7	7.0
Protective service .....	90	85	4.6	4.3	3.8	3.6	9.3	8.5
Service, except private household and protective .....	1,213	1,158	9.1	8.6	9.5	9.8	9.0	7.9
Precision production, craft, and repair .....	1,135	993	7.9	6.9	7.9	6.8	8.4	7.9
Mechanics and repairers .....	215	197	4.6	4.1	4.6	3.9	4.6	10.4
Construction trades .....	656	572	12.0	10.8	11.9	10.8	21.8	11.4
Other precision production, craft, and repair .....	264	223	6.2	5.2	5.8	4.6	7.6	7.1
Operators, fabricators, and laborers .....	2,318	1,977	12.1	10.3	12.1	10.3	12.1	10.2
Machine operators, assemblers, and inspectors .....	960	756	11.1	8.7	10.6	8.0	11.9	9.7
Transportation and matenal moving occupations .....	515	451	10.1	8.8	10.2	8.8	8.4	8.8
Handlers, equipment cleaners, helpers, and laborers .....	844	770	15.6	14.3	15.8	14.6	14.9	12.7
Construction laborers .....	235	254	29.5	27.1	29.9	26.8	( <sup>1</sup> )	( <sup>1</sup> )
Other handlers, equipment cleaners, helpers, and laborers .....	609	515	13.2	11.6	12.9	11.4	14.9	12.2
Farming, forestry, and fishing .....	333	299	10.5	9.5	10.6	9.2	10.0	10.8
No previous work expenence .....	921	782	-	-	-	-	-	-
16 to 19 years .....	607	502	-	-	-	-	-	-
20 to 24 years .....	169	164	-	-	-	-	-	-
25 years and over .....	144	115	-	-	-	-	-	-

<sup>1</sup> Data not shown where base is less than 75,000.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-13. Unemployed persons by industry and sex**

Industry	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
Total, 16 years and over .....	8,503	7,482	7.2	6.2	7.6	6.4	6.7	6.0
Nonagricultural private wage and salary workers .....	6,504	5,782	7.4	6.4	7.9	6.8	6.8	6.0
Mining .....	123	71	14.1	8.5	15.6	8.9	4.6	6.7
Construction .....	995	956	16.8	15.8	17.5	16.6	9.4	8.0
Manufacturing .....	1,577	1,322	7.3	6.1	6.5	5.6	8.8	7.2
Durable goods .....	913	810	7.1	6.3	6.7	6.0	8.1	7.0
Lumber and wood products .....	87	77	11.9	10.3	12.4	11.0	9.3	6.2
Furniture and fixtures .....	61	49	9.3	7.9	7.0	7.9	14.6	8.0
Stone, clay, and glass products .....	43	46	7.1	7.6	6.5	8.3	9.3	4.8
Primary metal industries .....	86	37	9.6	4.7	8.6	4.5	15.1	6.3
Fabricated metal products .....	122	113	8.9	7.9	8.1	8.3	11.7	6.7
Machinery, except electrical .....	161	107	6.5	4.2	6.1	4.4	7.8	3.7
Electrical machinery, equipment, and supplies .....	124	150	5.5	6.9	5.1	5.4	6.1	8.9
Transportation equipment .....	150	174	5.6	6.3	5.1	5.7	7.3	8.6
Automobiles .....	90	106	7.4	8.3	6.0	7.3	13.0	12.5
Other transportation equipment .....	60	69	4.1	4.7	4.3	4.2	3.2	5.8
Professional and photographic equipment .....	34	28	5.0	4.4	5.7	2.9	4.0	6.5
Other durable goods industries .....	44	29	8.3	5.2	8.0	4.1	8.3	6.3
Nondurable goods .....	663	512	7.6	5.8	6.3	4.8	9.5	7.3
Food and kindred products .....	207	184	11.1	10.3	9.3	9.6	15.0	11.9
Textile mill products .....	48	44	6.4	5.9	5.9	4.0	7.0	8.0
Apparel and other textile products .....	144	109	11.1	8.7	8.4	8.7	12.0	8.7
Paper and allied products .....	29	16	3.8	2.1	4.2	2.0	2.6	2.6
Printing and publishing .....	80	77	4.7	4.2	4.5	2.9	4.9	5.9
Chemicals and allied products .....	65	29	5.2	2.2	4.5	1.8	6.8	3.2
Rubber and miscellaneous plastics products .....	57	39	8.0	4.9	7.6	4.1	8.9	6.3
Other nondurable goods industries .....	34	16	9.0	4.5	5.1	3.2	15.7	6.0
Transportation and public utilities .....	291	269	4.7	4.2	5.0	4.6	4.1	3.0
Transportation .....	216	224	6.1	6.0	6.4	6.4	4.9	4.8
Communications and other public utilities .....	76	45	2.9	1.6	2.7	1.8	3.2	1.3
Wholesale and retail trade .....	1,836	1,628	8.1	7.2	7.5	6.3	8.7	8.1
Wholesale trade .....	292	207	6.5	4.7	6.1	4.3	7.4	5.5
Retail trade .....	1,544	1,421	8.5	7.8	7.9	6.9	8.9	8.5
Finance, insurance, and real estate .....	249	248	3.6	3.4	3.7	2.9	3.6	3.7
Service industries .....	1,433	1,287	6.0	5.2	6.8	5.6	5.5	4.9
Professional services .....	555	467	4.1	3.3	4.2	3.2	4.1	3.4
Other service industries .....	878	820	8.5	7.6	9.1	7.6	8.0	7.6
Agricultural wage and salary workers .....	255	243	15.6	14.7	15.9	14.0	14.5	17.1
Government, self-employed, and unpaid family workers .....	823	677	3.0	2.4	3.3	2.6	2.7	2.2
No previous work experience .....	921	782	-	-	-	-	-	-

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-14. Unemployed persons by reason for unemployment, sex, and race**

(Numbers in thousands)

Reason for unemployment	Total unemployed		Men, 20 years and over		Women, 20 years and over		Both sexes, 16 to 19 years		White		Black	
	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
<b>NUMBER OF UNEMPLOYED</b>												
Total unemployed .....	8,503	7,482	4,192	3,578	2,916	2,693	1,396	1,211	6,432	3,579	1,824	1,679
Job losers .....	4,469	3,739	2,954	2,397	1,229	1,106	287	235	3,478	2,833	855	818
On layoff .....	1,335	1,181	910	843	355	291	70	46	1,162	984	154	187
Other job losers .....	3,134	2,558	2,044	1,554	874	815	217	189	2,316	1,849	701	631
Job leavers .....	1,058	988	471	442	449	388	138	159	858	810	163	146
Reentrants .....	2,058	1,974	630	644	1,063	1,016	365	315	1,490	1,429	518	466
New entrants .....	918	782	138	95	174	184	606	502	606	507	287	248
<b>PERCENT DISTRIBUTION</b>												
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers .....	52.6	50.0	70.4	67.0	42.1	41.0	20.6	19.4	54.1	50.7	46.9	48.8
On layoff .....	15.7	15.8	21.7	23.6	12.2	10.8	5.0	3.8	18.1	17.6	8.4	11.2
Other job losers .....	36.9	34.2	48.7	43.4	29.9	30.2	15.6	15.6	36.0	33.1	38.4	37.6
Job leavers .....	12.4	13.2	11.2	12.4	15.4	14.4	9.9	13.1	13.3	14.5	9.0	8.7
Reentrants .....	24.2	26.4	15.0	18.0	36.5	37.7	26.2	26.0	23.2	25.6	28.4	27.8
New entrants .....	10.8	10.4	3.3	2.7	6.0	6.8	43.4	41.5	9.4	9.1	15.7	14.8
<b>UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE</b>												
Job losers .....	3.8	3.1	4.8	3.9	2.5	3.9	4.0	3.2	3.4	2.8	6.7	6.3
Job leavers .....	.9	.8	.8	.7	.9	.8	1.9	2.2	.8	.8	1.3	1.1
Reentrants .....	1.7	1.6	1.0	1.0	2.2	2.0	5.0	4.3	1.5	1.4	4.1	3.6
New entrants .....	.8	.7	.2	.2	.4	.4	8.3	6.8	.6	.5	2.3	1.9

A-15. Unemployed persons by reason for unemployment, sex, age, and duration of unemployment

(Percent distribution)

Reason, sex, and age	February 1988						
	Total unemployed		Duration of unemployment				
	Thousands of persons	Percent	Less than 5 weeks	5 to 14 weeks	15 weeks and over		
					Total	15 to 26 weeks	27 weeks and over
Total, 16 years and over .....	7,482	100.0	39.7	34.8	25.5	13.1	12.4
Job losers .....	3,739	100.0	30.8	38.6	30.6	15.8	14.8
On layoff .....	1,181	100.0	38.1	40.1	15.8	11.2	4.6
Other job losers .....	2,558	100.0	27.5	35.1	37.4	17.9	19.5
Job leavers .....	988	100.0	49.0	30.9	20.1	9.7	10.4
Reentrants .....	1,974	100.0	46.9	30.5	22.7	12.1	10.6
New entrants .....	782	100.0	52.8	32.2	15.2	6.6	8.6
Men, 20 years and over .....	3,578	100.0	32.0	37.9	30.2	15.2	15.0
Job losers .....	2,397	100.0	28.5	40.4	31.1	15.5	15.6
On layoff .....	843	100.0	36.1	49.5	14.4	9.7	4.7
Other job losers .....	1,554	100.0	24.3	35.5	40.2	18.7	21.5
Job leavers .....	442	100.0	43.1	30.4	26.5	11.1	15.4
Reentrants .....	644	100.0	37.1	34.1	28.8	17.6	11.3
New entrants .....	95	100.0	32.6	34.6	32.9	10.6	22.3
Women, 20 years and over .....	2,693	100.0	43.0	32.6	24.4	12.0	12.4
Job losers .....	1,106	100.0	34.0	33.9	32.2	17.1	15.1
On layoff .....	291	100.0	42.8	36.2	21.1	16.0	5.0
Other job losers .....	815	100.0	30.8	33.0	36.1	17.4	18.7
Job leavers .....	388	100.0	49.4	32.0	18.5	10.9	7.7
Reentrants .....	1,016	100.0	50.4	30.1	19.5	8.7	10.8
New entrants .....	184	100.0	42.8	40.0	17.2	2.9	14.3
Both sexes, 16 to 19 years .....	1,211	100.0	55.4	30.5	14.1	9.0	5.0
Job losers .....	235	100.0	39.9	42.5	17.6	12.8	4.7
On layoff .....	46	100.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other job losers .....	189	100.0	38.9	41.4	19.8	13.7	5.9
Job leavers .....	159	100.0	64.4	29.7	5.9	3.1	2.9
Reentrants .....	315	100.0	55.4	24.3	20.3	12.1	8.3
New entrants .....	502	100.0	59.9	28.9	11.2	7.2	3.9

<sup>1</sup> Data not shown where base is less than 75,000.

A-16. Unemployed persons by duration of unemployment

Duration of unemployment	Total				Full-time workers			
	Thousands of persons		Percent distribution		Thousands of persons		Percent distribution	
	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
Total, 16 years and over .....	8,503	7,482	100.0	100.0	6,912	5,980	100.0	100.0
Less than 5 weeks .....	3,216	2,973	37.8	39.7	2,325	2,089	33.6	34.9
5 to 14 weeks .....	2,957	2,802	34.8	34.8	2,462	2,194	35.6	36.6
5 to 10 weeks .....	2,237	1,984	26.3	28.2	1,823	1,618	28.4	27.0
11 to 14 weeks .....	721	639	8.5	8.5	639	578	9.2	9.6
15 weeks and over .....	2,329	1,907	27.4	25.5	2,125	1,707	30.7	28.5
15 to 26 weeks .....	1,166	977	13.7	13.1	1,038	886	15.0	14.5
27 weeks and over .....	1,163	930	13.7	12.4	1,088	841	15.7	14.0
27 to 51 weeks .....	488	343	5.7	4.6	457	321	6.8	5.4
52 weeks and over .....	675	587	7.9	7.8	631	520	9.1	8.7
Average (mean) duration, in weeks .....	14.7	14.3	-	-	16.2	15.6	-	-
Median duration, in weeks .....	7.4	7.1	-	-	8.5	8.2	-	-



**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-17. Unemployed persons by sex, age, race, marital status, and duration of unemployment**

Sex, age, race, and marital status	Thousands of persons					Weeks		Percent of unemployed in group			
	Total	Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 weeks and over	Average (mean) duration	Median duration	Unemployed less than 5 weeks	Unemployed 15 weeks and over		
	February 1988							Feb 1987	Feb 1988	Feb. 1987	Feb 1988
Total, 16 years and over .....	7,482	2,973	2,602	977	930	14.3	7.1	37.8	39.7	27.4	25.5
16 to 19 years .....	1,211	671	369	109	61	8.5	4.5	50.0	55.4	14.4	14.1
20 to 24 years .....	1,406	615	539	136	115	11.5	6.1	43.3	43.8	21.4	17.9
25 to 34 years .....	2,163	863	746	278	276	14.2	7.1	36.5	39.9	29.7	25.6
35 to 44 years .....	1,384	421	525	215	224	17.2	9.3	30.8	30.4	33.7	31.7
45 to 54 years .....	782	238	259	144	140	19.1	9.7	27.7	30.5	38.7	36.3
55 to 64 years .....	448	126	139	07	95	21.6	11.0	28.5	28.2	36.4	40.7
65 years and over .....	90	38	26	8	18	17.1	6.6	38.0	42.3	23.8	29.1
Men, 16 years and over .....	4,232	1,464	1,571	623	574	15.8	8.2	33.9	34.6	30.2	28.3
16 to 19 years .....	654	321	216	79	38	9.5	5.2	44.7	49.1	18.0	17.9
20 to 24 years .....	817	314	337	100	67	12.1	7.0	39.9	38.5	23.3	20.3
25 to 34 years .....	1,216	440	450	162	164	15.1	7.7	33.6	36.2	32.3	26.8
35 to 44 years .....	740	185	287	131	137	20.1	10.5	26.7	25.0	36.5	36.2
45 to 54 years .....	464	119	166	87	93	21.2	10.3	24.7	25.6	41.2	38.7
55 to 64 years .....	289	68	95	59	67	23.8	12.4	23.3	23.4	39.3	43.6
65 years and over .....	51	17	21	5	9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Women, 16 years and over .....	3,250	1,508	1,031	355	356	12.4	5.7	43.3	46.4	23.4	21.9
16 to 19 years .....	557	350	153	30	23	7.4	4.0	56.9	62.9	9.7	9.6
20 to 24 years .....	588	301	202	36	49	10.7	4.9	48.2	51.2	18.8	14.5
25 to 34 years .....	946	423	296	116	112	13.0	6.3	40.5	44.7	26.0	24.1
35 to 44 years .....	644	235	238	83	87	13.9	7.9	36.1	36.5	30.0	26.5
45 to 54 years .....	317	119	94	57	47	16.0	8.0	32.6	37.6	34.7	32.9
55 to 64 years .....	158	58	44	28	28	17.6	7.9	38.5	36.8	30.8	35.6
65 years and over .....	39	21	5	4	9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
White, 16 years and over .....	5,579	2,246	1,945	731	657	13.8	6.9	39.2	40.3	26.3	24.9
Men .....	3,196	1,119	1,173	475	429	15.6	8.1	35.0	35.0	29.0	28.3
Women .....	2,383	1,127	772	256	228	11.3	5.5	45.6	47.3	21.9	20.3
Black, 16 years and over .....	1,678	626	579	220	253	16.5	7.8	33.2	37.3	30.7	23.2
Men .....	898	300	340	125	132	16.8	8.2	30.5	33.5	33.6	28.7
Women .....	780	326	239	95	121	16.3	7.1	35.9	41.7	27.8	27.6
Men, 16 years and over:											
Married, spouse present .....	1,702	476	673	283	269	17.5	9.5	29.4	28.0	34.5	32.5
Widowed, divorced, or separated .....	577	184	218	89	85	17.0	8.6	25.6	32.0	39.9	30.2
Single (never married) .....	1,954	804	680	250	219	14.0	7.0	40.1	41.2	23.9	24.0
Women, 16 years and over:											
Married, spouse present .....	1,285	582	409	152	142	12.1	6.0	42.3	45.3	24.1	22.9
Widowed, divorced, or separated .....	726	282	252	99	93	14.5	7.6	34.7	38.8	30.8	26.4
Single (never married) .....	1,240	644	370	104	121	11.5	4.8	49.0	52.0	18.7	18.2

<sup>1</sup> Data not shown where base is less than 75,000.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-18. Unemployed persons by occupation, industry, and duration of unemployment**

Occupation and industry	Thousands of persons					Weeks		Percent of unemployed in group			
	Total	Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 weeks and over	Average (mean) duration	Median duration	Unemployed less than 5 weeks		Unemployed 15 weeks and over	
								Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
	February 1988							Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
OCCUPATION											
Managerial and professional specialty .....	586	191	205	104	86	16.8	8.7	35.6	32.5	32.8	32.5
Technical, sales, and administrative support .....	1,502	618	472	223	190	14.0	6.7	39.5	41.1	25.4	27.5
Service occupations .....	1,311	615	388	164	143	13.0	5.9	45.5	46.9	22.8	23.5
Precision production, craft, and repair .....	993	325	411	124	133	15.7	8.2	34.9	32.8	27.9	25.8
Operators, fabricators, and laborers .....	1,977	698	748	243	288	15.4	7.8	31.5	35.3	30.9	26.9
Farming, forestry, and fishing .....	299	96	117	68	19	13.5	9.0	35.6	32.0	26.5	28.8
INDUSTRY <sup>1</sup>											
Agriculture .....	243	89	104	46	3	9.2	7.8	40.3	36.6	23.3	20.4
Construction .....	975	290	463	118	105	14.0	8.7	33.5	29.8	22.5	22.8
Manufacturing .....	1,324	491	427	179	228	17.1	7.9	32.3	37.1	34.3	30.7
Durable goods .....	810	281	257	113	158	19.1	8.6	30.4	34.7	34.5	33.6
Nondurable goods .....	514	209	170	65	69	14.1	6.9	35.0	40.7	34.0	26.1
Transportation and public utilities .....	314	107	106	37	63	17.8	8.5	27.9	34.0	30.0	32.0
Wholesale and retail trade .....	1,633	720	609	145	159	11.8	6.0	42.6	44.1	24.0	18.6
Finance and service industries .....	1,774	696	513	323	242	15.4	7.9	38.8	39.2	26.5	31.8
Public administration .....	174	81	35	41	17	15.1	5.8	33.1	46.4	38.4	33.7
No previous work experience .....	782	411	252	52	67	11.2	7.8	45.9	52.6	24.1	15.2

<sup>1</sup> Includes wage and salary workers only.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-19. Unemployed jobseekers by sex, age, race, and jobsearch methods used**

Sex, age, and race	February 1988								Average number of methods used
	Thousands of persons		Methods used as a percent of total jobseekers						
	Total unemployed	Total job-seekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives	Other	
Total, 16 years and over . . . . .	7,482	6,176	22.3	6.8	74.2	37.6	17.9	4.9	1.64
16 to 19 years . . . . .	1,211	1,142	11.0	3.2	82.3	27.1	13.3	2.2	1.39
20 to 24 years . . . . .	1,406	1,193	21.2	7.5	77.8	36.3	16.2	3.7	1.63
25 to 34 years . . . . .	2,163	1,733	27.5	6.8	72.1	39.3	18.2	4.7	1.68
35 to 44 years . . . . .	1,384	1,100	26.5	9.4	71.7	42.6	20.1	6.5	1.77
45 to 54 years . . . . .	782	598	21.2	7.0	67.6	43.6	20.2	9.0	1.69
55 to 64 years . . . . .	448	336	26.5	10.1	64.9	41.4	27.4	6.5	1.77
65 years and over . . . . .	90	74	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Men, 16 years and over . . . . .	4,232	3,284	23.8	7.7	75.3	36.1	20.0	5.6	1.69
16 to 19 years . . . . .	654	611	12.6	3.8	83.1	21.1	15.2	2.3	1.38
20 to 24 years . . . . .	817	668	19.9	7.9	78.1	37.6	19.8	3.6	1.67
25 to 34 years . . . . .	1,216	882	29.3	8.4	74.4	38.5	19.5	4.2	1.74
35 to 44 years . . . . .	740	545	29.7	10.8	72.3	41.3	22.0	10.1	1.86
45 to 54 years . . . . .	484	324	21.0	7.1	66.4	40.4	24.1	11.1	1.70
55 to 64 years . . . . .	289	211	34.6	10.4	69.7	46.0	26.1	8.1	1.95
65 years and over . . . . .	51	43	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Women, 16 years and over . . . . .	3,250	2,893	20.6	5.8	72.9	39.2	15.4	4.0	1.58
16 to 19 years . . . . .	557	531	9.2	2.6	81.5	33.9	11.1	2.3	1.41
20 to 24 years . . . . .	588	525	22.9	7.0	77.3	34.7	11.6	3.8	1.57
25 to 34 years . . . . .	946	851	25.6	5.2	69.7	40.1	16.8	5.2	1.63
35 to 44 years . . . . .	644	555	23.4	7.9	71.4	43.8	13.2	2.9	1.68
45 to 54 years . . . . .	317	275	21.1	6.5	69.1	47.3	15.3	6.2	1.65
55 to 64 years . . . . .	158	125	12.8	9.6	56.8	34.4	29.6	4.0	1.47
65 years and over . . . . .	39	31	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
White, 16 years and over . . . . .	5,579	4,502	21.2	7.2	74.8	39.0	17.8	5.2	1.65
Men . . . . .	3,196	2,407	22.8	7.8	75.7	37.4	20.4	6.1	1.70
Women . . . . .	2,383	2,095	19.4	6.6	73.7	40.8	14.7	4.1	1.59
Black, 16 years and over . . . . .	1,678	1,473	25.7	4.9	73.9	33.4	17.4	3.9	1.59
Men . . . . .	898	758	27.0	5.7	76.1	31.1	17.8	3.8	1.62
Women . . . . .	780	716	24.2	4.1	71.4	35.8	16.9	4.1	1.56

<sup>1</sup> Data not shown where base is less than 75,000.  
NOTE: The jobseeker total is less than the total unemployed because it does not include persons on layoff or waiting to begin a new job within 30 days, groups for whom jobseeking information is not collected. The percent using each method will always total more than 100 because many jobseekers use more than one method.

**A-20. Unemployed jobseekers by sex, reason for unemployment, and jobsearch methods used**

Sex and reason	February 1988								
	Thousands of persons		Methods used as a percent of total jobseekers						Average number of methods used
	Total unemployed	Total job-seekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives	Other	
Total, 16 years and over .....	7,482	6,176	22.3	6.8	74.2	37.6	17.9	4.9	1.64
Job losers <sup>1</sup> .....	3,739	2,550	27.0	6.9	75.8	40.0	19.5	6.0	1.75
Job leavers .....	988	1,020	21.5	9.6	72.3	44.7	15.2	3.7	1.67
Reentrants .....	1,974	1,833	20.1	6.6	71.7	36.0	17.9	5.1	1.58
New entrants .....	782	773	12.9	3.5	77.6	24.2	15.9	2.1	1.36
Men, 16 years and over .....	4,232	3,284	23.8	7.7	75.3	36.1	20.0	5.6	1.69
Job losers <sup>1</sup> .....	2,583	1,672	27.6	8.0	76.4	39.4	20.2	7.2	1.79
Job leavers .....	524	543	23.2	9.8	75.1	40.0	20.6	2.9	1.72
Reentrants .....	827	756	22.0	7.0	70.4	32.9	20.2	6.1	1.59
New entrants .....	318	313	8.0	4.8	82.4	19.8	17.6	.6	1.33
Women, 16 years and over .....	3,250	2,893	20.6	5.8	72.9	39.2	15.4	4.0	1.58
Job losers <sup>1</sup> .....	1,175	878	25.7	4.9	74.7	41.0	18.2	3.5	1.68
Job leavers .....	465	478	19.5	9.4	68.8	50.0	8.8	4.8	1.61
Reentrants .....	1,147	1,077	18.7	6.1	72.7	38.2	16.3	4.5	1.56
New entrants .....	463	460	16.3	2.8	74.3	27.4	14.8	3.0	1.39

<sup>1</sup> Data on the number of jobseekers and the jobsearch methods used exclude persons on layoff.  
NOTE: The jobseeker total is less than the total unemployed because it does not include persons on layoff or waiting to begin a new job within 30 days, groups for whom jobseeking information is not collected. The percent using each method will always total more than 100 because many jobseekers use more than one method.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-21. Employed civilians in agriculture and nonagricultural industries by age and sex**

(In thousands)

Industry and age	Total		Men		Women	
	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
All industries .....	109,464	112,460	60,337	61,675	49,126	50,785
16 to 19 years .....	5,875	6,120	2,981	3,048	2,894	3,072
16 to 17 years .....	2,341	2,375	1,196	1,192	1,144	1,183
18 to 19 years .....	3,535	3,745	1,785	1,857	1,750	1,889
20 to 24 years .....	13,240	13,049	6,807	6,664	6,433	6,385
25 to 54 years .....	76,202	78,853	42,208	43,524	33,994	35,329
25 to 34 years .....	32,425	33,211	18,052	18,429	14,373	14,782
35 to 44 years .....	26,644	27,580	14,588	15,064	12,056	12,516
45 to 54 years .....	17,133	18,062	9,568	10,031	7,565	8,031
55 to 64 years .....	11,306	11,341	6,639	6,596	4,667	4,744
55 to 59 years .....	6,850	6,839	4,000	3,957	2,850	2,882
60 to 64 years .....	4,456	4,502	2,639	2,640	1,817	1,862
65 years and over .....	2,840	3,096	1,702	1,841	1,138	1,255
Agriculture .....	2,764	2,760	2,201	2,168	564	592
16 to 19 years .....	168	181	140	141	29	40
16 to 17 years .....	80	74	65	54	15	20
18 to 19 years .....	89	107	75	87	14	20
20 to 24 years .....	343	304	305	238	37	66
25 to 54 years .....	1,637	1,631	1,242	1,246	395	386
25 to 34 years .....	719	719	562	573	157	146
35 to 44 years .....	515	481	385	358	130	123
45 to 54 years .....	404	432	296	315	107	117
55 to 64 years .....	382	398	305	328	77	70
55 to 59 years .....	191	213	144	171	47	42
60 to 64 years .....	191	185	162	157	29	28
65 years and over .....	234	245	208	215	26	30
Nonagricultural industries .....	106,700	109,700	58,137	59,506	48,563	50,194
16 to 19 years .....	5,707	5,939	2,841	2,907	2,866	3,032
16 to 17 years .....	2,261	2,301	1,131	1,138	1,130	1,163
18 to 19 years .....	3,446	3,638	1,710	1,770	1,736	1,869
20 to 24 years .....	12,897	12,745	6,502	6,426	6,396	6,319
25 to 54 years .....	74,565	77,222	40,966	42,280	33,598	34,942
25 to 34 years .....	31,706	32,493	17,490	17,857	14,216	14,636
35 to 44 years .....	26,129	27,099	14,204	14,707	11,926	12,392
45 to 54 years .....	16,729	17,631	9,272	9,717	7,457	7,914
55 to 64 years .....	10,925	10,943	6,334	6,268	4,591	4,675
55 to 59 years .....	6,659	6,626	3,856	3,785	2,803	2,841
60 to 64 years .....	4,266	4,317	2,478	2,483	1,788	1,834
65 years and over .....	2,606	2,851	1,494	1,625	1,112	1,225

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-22. Employed civilians by occupation, sex, and age**

(In thousands)

Occupation	Total		Men				Women			
	16 years and over		16 years and over		20 years and over		16 years and over		20 years and over	
	Feb 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
Total .....	109,464	112,460	60,337	61,675	57,356	58,626	49,126	50,785	46,232	47,714
Managerial and professional specialty .....	27,246	28,621	15,219	15,866	15,142	15,768	12,027	12,755	11,934	12,629
Executive, administrative, and managerial .....	12,725	13,759	7,874	8,372	7,841	8,319	4,851	5,387	4,815	5,336
Officials and administrators, public administration .....	567	547	344	331	344	331	224	216	222	216
Other executive, administrative, and managerial .....	8,604	9,421	5,672	6,172	5,643	6,126	2,932	3,249	2,907	3,211
Management-related occupations .....	3,554	3,791	1,858	1,869	1,854	1,861	1,695	1,922	1,685	1,909
Professional specialty .....	14,521	14,862	7,345	7,494	7,301	7,449	7,176	7,368	7,119	7,293
Engineers .....	1,802	1,775	1,681	1,643	1,677	1,642	121	132	121	132
Mathematical and computer scientists .....	693	678	448	462	447	462	246	217	245	214
Natural scientists .....	402	428	313	335	313	335	89	93	89	93
Health diagnosing occupations .....	766	759	644	622	644	622	122	136	121	134
Health assessment and treating occupations .....	2,157	2,111	337	325	336	325	1,820	1,786	1,819	1,782
Teachers, college and university .....	718	711	458	440	458	438	260	271	256	269
Teachers, except college and university .....	3,718	3,931	938	1,090	929	1,084	2,779	2,841	2,752	2,810
Lawyers and judges .....	687	761	550	601	550	599	137	160	135	158
Other professional specialty occupations .....	3,579	3,708	1,976	1,976	1,947	1,942	1,603	1,732	1,582	1,701
Technical, sales, and administrative support .....	34,519	35,209	12,175	12,485	11,624	11,882	22,344	22,724	20,740	21,069
Technicians and related support .....	3,163	3,381	1,602	1,766	1,564	1,740	1,561	1,614	1,542	1,602
Health technologists and technicians .....	1,050	1,123	127	169	127	167	923	954	914	948
Engineering and science technicians .....	1,078	1,098	865	895	842	880	213	203	209	201
Technicians, except health, engineering, and science .....	1,035	1,159	610	703	594	693	426	457	420	453
Sales occupations .....	13,181	13,376	6,993	6,963	6,660	6,584	6,188	6,413	5,261	5,464
Supervisors and proprietors .....	3,567	3,569	2,502	2,447	2,494	2,416	1,065	1,122	1,049	1,096
Sales representatives, finance and business services .....	2,266	2,365	1,386	1,429	1,377	1,412	880	936	846	901
Sales representatives, commodities, except retail .....	1,492	1,534	1,246	1,232	1,242	1,227	246	301	242	289
Sales workers, retail and personal services .....	5,813	5,850	1,848	1,835	1,537	1,510	3,965	4,015	3,093	3,145
Sales-related occupations .....	43	58	11	20	11	20	33	39	31	33
Administrative support, including clerical .....	18,175	18,453	3,580	3,756	3,400	3,558	14,595	14,697	13,937	14,003
Supervisors .....	724	741	298	310	296	311	426	431	422	427
Computer equipment operators .....	812	869	283	312	267	296	528	556	503	529
Secretaries, stenographers, and typists .....	5,012	5,071	77	82	65	77	4,935	4,989	4,739	4,790
Financial records processing .....	2,511	2,319	228	217	225	211	2,283	2,102	2,221	2,057
Mail and message distributing .....	940	917	590	591	554	581	350	326	329	311
Other administrative support, including clerical .....	8,176	8,536	2,104	2,243	1,993	2,082	6,073	6,293	5,724	5,888
Service occupations .....	14,835	15,170	5,953	5,977	5,045	5,148	8,883	9,194	7,879	8,223
Private household .....	917	885	28	25	10	17	889	861	704	717
Protective service .....	1,875	1,897	1,626	1,641	1,593	1,603	249	257	230	239
Service, except private household and protective .....	12,044	12,388	4,299	4,312	3,442	3,528	7,745	8,076	6,946	7,266
Food service .....	5,131	5,195	2,025	2,040	1,398	1,450	3,106	3,154	2,538	2,569
Health service .....	1,865	2,033	196	250	179	239	1,669	1,784	1,588	1,717
Cleaning and building service .....	2,862	2,831	1,661	1,597	1,510	1,462	1,201	1,234	1,129	1,186
Personal service .....	2,186	2,329	417	425	355	376	1,769	1,904	1,690	1,795
Precision production, craft, and repair .....	13,232	13,373	12,139	12,243	11,857	11,968	1,093	1,129	1,075	1,101
Mechanics and repairers .....	4,477	4,558	4,330	4,414	4,230	4,325	147	145	148	145
Construction trades .....	4,790	4,728	4,714	4,636	4,570	4,520	76	92	76	88
Other precision production, craft, and repair .....	3,965	4,086	3,095	3,193	3,057	3,122	870	893	851	869
Operators, fabricators, and laborers .....	16,803	17,237	42,468	12,728	11,456	11,648	4,335	4,509	4,185	4,254
Machine operators, assemblers, and inspectors .....	7,653	7,914	4,526	4,675	4,381	4,526	3,127	3,239	3,051	3,122
Manufacturing industries .....	6,395	6,590	3,737	3,846	3,623	3,740	2,659	2,745	2,595	2,653
Durable goods .....	3,527	3,603	2,430	2,463	2,367	2,408	1,097	1,139	1,077	1,111
Nondurable goods .....	2,868	2,988	1,306	1,383	1,257	1,332	1,562	1,605	1,518	1,542
Nonmanufacturing industries .....	1,258	1,324	790	829	758	786	468	495	456	469
Transportation and material moving occupations .....	4,596	4,696	4,158	4,226	4,016	4,089	438	469	432	446
Motor vehicle operators .....	3,486	3,564	3,085	3,148	2,957	3,024	401	416	395	392
Other transportation and material moving occupations .....	1,110	1,132	1,073	1,079	1,059	1,065	37	54	37	54
Handlers, equipment cleaners, helpers, and laborers .....	4,554	4,627	3,784	3,827	3,059	3,033	770	800	702	687
Construction laborers .....	561	684	543	675	495	613	17	9	17	4
Other handlers, equipment cleaners, helpers, and laborers .....	3,994	3,943	3,241	3,152	2,564	2,421	753	791	684	683
Farming, forestry, and fishing .....	2,828	2,849	2,383	2,375	2,232	2,213	445	474	420	437
Farm operators and managers .....	1,247	1,225	1,059	1,059	1,049	1,045	188	166	187	166
Other farming, forestry, and fishing occupations .....	1,581	1,625	1,324	1,316	1,183	1,168	256	308	232	271

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-23. Employed civilians by occupation, race, and sex**

(Percent distribution)

Occupation and race	Total		Men		Women	
	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
<b>TOTAL</b>						
Total, 16 years and over (thousands)	109,464	112,460	60,337	61,675	49,126	50,785
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty	24.9	25.5	25.2	25.7	24.5	25.1
Executive, administrative, and managerial	11.6	12.2	13.1	13.6	9.9	10.6
Professional specialty	13.3	13.2	12.2	12.2	14.6	14.5
Technical, sales, and administrative support	31.5	31.3	20.2	20.2	45.5	44.7
Technicians and related support	2.9	3.0	2.7	2.9	3.2	3.2
Sales occupations	12.0	11.9	11.6	11.3	12.6	12.6
Administrative support, including clerical	16.6	16.4	5.9	6.1	29.7	28.9
Service occupations	13.6	13.5	9.9	9.7	18.1	18.1
Private household	.8	.8	( <sup>1</sup> )	( <sup>1</sup> )	1.8	1.7
Protective service	1.7	1.7	2.7	2.7	.5	.5
Service, except private household and protective	11.0	11.0	7.1	7.0	15.8	15.9
Precision production, craft, and repair	12.1	11.9	20.1	19.9	2.2	2.2
Operators, fabricators, and laborers	15.4	15.3	20.7	20.6	8.8	8.9
Machine operators, assemblers, and inspectors	7.0	7.0	7.5	7.6	6.4	6.4
Transportation and material moving occupations	4.2	4.2	6.9	6.9	.9	.9
Handlers, equipment cleaners, helpers, and laborers	4.2	4.1	6.3	6.2	1.6	1.6
Farming, forestry, and fishing	2.6	2.5	3.9	3.9	.9	.9
<b>White</b>						
Total, 16 years and over (thousands)	95,377	97,810	53,210	54,310	42,167	43,509
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty	25.9	26.4	26.3	26.7	25.5	26.1
Executive, administrative, and managerial	12.2	12.9	13.6	14.2	10.5	11.2
Professional specialty	13.7	13.6	12.6	12.5	15.0	14.9
Technical, sales, and administrative support	31.9	31.6	20.4	20.4	46.4	45.7
Technicians and related support	2.9	3.0	2.7	2.9	3.2	3.1
Sales occupations	12.6	12.4	12.2	11.9	13.1	13.1
Administrative support, including clerical	16.4	16.2	5.5	5.7	30.1	29.4
Service occupations	12.4	12.3	8.9	8.7	16.8	16.8
Private household	.8	.7	( <sup>1</sup> )	( <sup>1</sup> )	1.6	1.5
Protective service	1.6	1.6	2.6	2.5	.4	.5
Service, except private household and protective	10.0	10.0	6.2	6.2	14.7	14.9
Precision production, craft, and repair	12.6	12.4	20.8	20.5	2.2	2.2
Operators, fabricators, and laborers	14.5	14.6	19.6	19.7	8.1	8.2
Machine operators, assemblers, and inspectors	6.5	6.7	7.1	7.3	5.7	5.8
Transportation and material moving occupations	4.1	4.0	6.6	6.5	.9	.9
Handlers, equipment cleaners, helpers, and laborers	3.9	3.9	5.8	5.8	1.5	1.5
Farming, forestry, and fishing	2.7	2.7	4.1	4.0	1.0	1.0
<b>Black</b>						
Total, 16 years and over (thousands)	10,872	11,288	5,405	5,560	5,467	5,728
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty	14.7	15.9	12.7	14.1	16.8	17.6
Executive, administrative, and managerial	6.2	6.8	7.0	7.1	5.5	6.5
Professional specialty	8.5	9.1	5.8	7.0	11.2	11.1
Technical, sales, and administrative support	28.9	27.9	17.5	17.2	40.2	38.3
Technicians and related support	2.6	2.5	1.9	1.9	3.2	3.0
Sales occupations	7.3	7.0	5.6	5.4	9.0	8.5
Administrative support, including clerical	19.0	18.5	10.0	9.9	27.9	26.8
Service occupations	23.0	23.4	18.5	18.3	27.5	28.4
Private household	1.7	1.7	.1	1	3.4	3.4
Protective service	2.8	2.7	4.5	4.7	1.1	.8
Service, except private household and protective	18.5	18.9	13.9	13.5	23.1	24.2
Precision production, craft, and repair	8.8	8.8	15.6	15.7	2.0	2.2
Operators, fabricators, and laborers	22.9	22.5	32.7	32.1	13.3	13.3
Machine operators, assemblers, and inspectors	10.6	10.0	11.0	10.1	10.1	10.0
Transportation and material moving occupations	5.7	6.2	10.5	11.4	1.0	1.3
Handlers, equipment cleaners, helpers, and laborers	6.6	6.3	11.1	10.6	2.1	2.1
Farming, forestry, and fishing	1.6	1.4	3.0	2.6	.3	.3

<sup>1</sup> Less than 0.05 percent.



**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-24. Employed civilians by age, sex, and class of worker**

(In thousand-)

Age and sex	February 1988								
	Nonagricultural industries						Agriculture		
	Wage and salary workers				Self-employed workers	Unpaid family workers	Wage and salary workers	Self-employed workers	Unpaid family workers
	Total	Private household workers	Government	Other					
Total, 16 years and over .....	101,341	1,087	17,270	82,984	3,146	213	1,407	1,274	79
16 to 19 years .....	5,886	182	294	5,409	47	6	151	9	21
16 to 17 years .....	2,278	118	63	2,097	21	2	59	3	12
18 to 19 years .....	3,607	64	232	3,312	27	4	91	6	9
20 to 24 years .....	12,431	105	1,213	11,113	303	12	252	48	4
25 to 34 years .....	30,565	209	4,456	25,900	1,871	56	448	262	8
35 to 44 years .....	24,648	151	5,379	19,118	2,396	55	218	236	28
45 to 54 years .....	15,846	134	3,448	12,264	1,732	52	167	251	13
55 to 64 years .....	9,674	167	2,059	7,448	1,246	23	122	274	2
55 to 59 years .....	5,901	104	1,289	4,508	711	14	66	145	2
60 to 64 years .....	3,773	63	770	2,940	535	9	56	130	-
65 years and over .....	2,291	139	420	1,732	551	9	49	193	3
Men, 16 years and over .....	54,101	10	8,064	45,928	5,382	24	1,079	1,066	23
16 to 19 years .....	2,872	32	117	2,723	30	5	116	9	15
16 to 17 years .....	1,127	20	17	1,090	10	1	41	3	10
18 to 19 years .....	1,745	11	100	1,633	20	5	75	7	5
20 to 24 years .....	6,243	8	526	5,709	177	6	197	41	-
25 to 34 years .....	16,666	29	2,081	14,557	1,187	3	355	214	4
35 to 44 years .....	13,154	13	2,521	10,621	1,551	2	157	199	2
45 to 54 years .....	8,556	-	1,607	6,951	1,154	7	113	202	-
55 to 64 years .....	5,368	13	1,017	4,339	900	-	95	233	-
55 to 59 years .....	3,283	9	641	2,632	502	-	51	120	-
60 to 64 years .....	2,085	4	375	1,706	398	-	44	113	-
65 years and over .....	1,240	16	196	1,028	383	2	46	167	2
Women, 16 years and over .....	47,240	978	9,205	37,056	2,764	189	327	208	57
16 to 19 years .....	3,014	151	177	2,686	17	1	34	-	6
16 to 17 years .....	1,151	98	46	1,007	11	1	18	-	2
18 to 19 years .....	1,863	52	131	1,679	6	-	16	-	4
20 to 24 years .....	6,187	96	687	5,404	126	6	55	6	4
25 to 34 years .....	13,899	180	2,375	11,343	684	54	94	48	4
35 to 44 years .....	11,494	139	2,856	8,497	645	53	61	37	26
45 to 54 years .....	7,290	136	1,841	5,313	578	46	54	49	13
55 to 64 years .....	4,306	154	1,043	3,110	346	23	26	41	2
55 to 59 years .....	2,618	95	648	1,876	209	14	15	25	2
60 to 64 years .....	1,688	59	395	1,234	137	9	12	17	-
65 years and over .....	1,050	123	223	704	168	7	3	26	1

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-25. Employed civilians by industry and occupation**

(In thousands)

Industry	February 1988												
	Total employed	Managerial and professional specialty		Technical, sales, and administrative support			Service occupations		Precision production, craft, and repair	Operators, fabricators, and laborers			Farming, forestry, and fishing
		Executive, administrative, and managerial	Professional specialty	Technicians and related support	Sales	Administrative support, including clerical	Private household	Other service <sup>1</sup>		Machine operators, assemblers, and inspectors	Transportation and material moving	Handlers, equipment cleaners, helpers, and laborers	
Agriculture .....	2,760	76	62	29	9	90	-	11	49	14	48	14	2,359
Mining .....	800	137	67	49	13	108	-	5	254	22	112	29	1
Construction .....	6,857	912	139	48	84	464	-	24	3,933	98	394	746	15
Manufacturing .....	20,907	2,403	1,711	668	758	2,369	-	337	4,007	6,590	837	1,138	88
Durable goods .....	12,393	1,502	1,134	443	298	1,356	-	184	2,815	3,603	397	577	83
Nondurable goods .....	8,514	901	577	225	459	1,014	-	153	1,192	2,988	439	561	4
Transportation and public utilities .....	8,156	887	445	272	305	2,222	-	271	1,343	134	1,832	441	4
Wholesale and retail trade .....	23,105	1,959	427	86	9,465	2,361	-	4,262	1,538	309	907	1,767	25
Wholesale trade .....	4,590	531	86	34	1,759	841	-	47	341	136	440	368	8
Retail trade .....	18,515	1,428	341	53	7,706	1,521	-	4,215	1,197	172	467	1,399	17
Finance, insurance, and real estate .....	7,861	1,947	205	146	1,841	3,146	-	344	139	14	12	24	44
Services .....	36,773	4,303	11,088	1,846	860	6,276	885	7,709	1,882	708	506	428	280
Private households .....	1,093	1	8	6	-	8	885	103	7	-	15	28	33
Other service industries .....	35,680	4,302	11,080	1,840	861	6,267	-	7,607	1,875	709	491	400	248
Professional services .....	23,985	2,387	9,889	1,503	165	4,563	-	4,413	414	190	294	100	68
Public administration .....	5,242	1,138	718	236	40	1,416	-	1,322	228	24	48	41	34

<sup>1</sup> Includes protective service, not shown separately.

**A-26. Employed civilians with a job but not at work by reason, sex, and pay status**

(In thousands)

Reason not working and sex	All industries		Nonagricultural industries					
	Feb. 1987	Feb. 1988	Total		Wage and salary workers <sup>1</sup>			
			Feb. 1987	Feb. 1988	Paid absences		Unpaid absences	
					Feb. 1987	Feb. 1988	Feb. 1987	Feb. 1988
Total, 16 years and over .....	4,004	4,210	3,859	4,012	1,646	1,606	1,653	1,815
Vacation .....	1,331	1,316	1,302	1,267	869	788	283	315
Illness .....	1,417	1,518	1,386	1,471	524	579	722	754
Bad weather .....	234	313	198	265	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Industrial dispute .....	29	20	29	20	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
All other reasons <sup>2</sup> .....	993	1,044	943	990	253	239	648	746
Men, 16 years and over .....	2,162	2,322	2,043	2,164	877	862	792	895
Vacation .....	762	770	740	738	505	458	133	168
Illness .....	721	785	694	747	268	308	345	366
All other reasons <sup>2</sup> .....	679	767	608	680	104	98	314	361
Women, 16 years and over .....	1,842	1,888	1,817	1,847	769	744	860	921
Vacation .....	570	546	562	529	364	330	150	147
Illness .....	698	732	693	724	256	272	377	389
All other reasons <sup>2</sup> .....	578	609	562	594	149	141	334	385

<sup>1</sup> Excludes private household workers.

<sup>2</sup> Pay status not available separately for bad weather and industrial dispute; these categories are included in all other reasons.

<sup>3</sup> Includes bad weather and industrial dispute, not shown separately.

NOTE: Estimates for "all other reasons" by pay status may be biased because of high response variance; data should be used with caution.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-27. Persons at work by hours of work and type of industry**

Hours of work	February 1988					
	Thousands of persons			Percent distribution		
	All industries	Agriculture	Nonagricultural industries	All industries	Agriculture	Nonagricultural industries
Total, 16 years and over .....	108,249	2,561	105,688	100.0	100.0	100.0
1 to 34 hours .....	27,897	884	27,014	25.8	34.5	25.6
1 to 4 hours .....	914	32	882	8	1.2	.8
5 to 14 hours .....	5,028	231	4,797	4.6	9.0	4.5
15 to 29 hours .....	13,297	411	12,886	12.3	16.0	12.2
30 to 34 hours .....	8,658	210	8,449	8.0	8.2	8.0
35 hours and over .....	80,351	1,677	78,674	74.2	65.5	74.4
35 to 39 hours .....	7,211	131	7,080	6.7	5.1	6.7
40 hours .....	42,232	516	41,716	39.0	20.1	39.5
41 hours and over .....	30,908	1,030	29,878	28.6	40.2	28.3
41 to 48 hours .....	11,127	243	10,884	10.3	9.5	10.3
49 to 59 hours .....	11,515	293	11,222	10.6	11.4	10.6
60 hours and over .....	8,266	494	7,772	7.6	19.3	7.4
Average hours, total at work .....	38.8	40.8	38.7	-	-	-
Average hours, workers on full-time schedules .....	43.3	48.5	43.2	-	-	-

**A-28. Persons at work 1 to 34 hours by reason for working less than 35 hours, type of industry, and usual status**

(Numbers in thousands)

Reason for working less than 35 hours	February 1988					
	All industries			Nonagricultural industries		
	Total	Usually work full time	Usually work part time	Total	Usually work full time	Usually work part time
Total, 16 years and over .....	27,897	8,990	18,908	27,014	8,647	18,367
Economic reasons .....	5,377	1,915	3,462	5,117	1,805	3,312
Slack work .....	2,661	1,589	1,072	2,504	1,484	1,020
Material shortages or repairs to plant and equipment .....	47	47	-	45	45	-
New job started during week .....	203	203	-	200	200	-
Job terminated during week .....	75	75	-	75	75	-
Could find only part-time work .....	2,390	-	2,390	2,292	-	2,292
Other reasons .....	22,520	7,074	15,446	21,897	6,842	15,055
Does not want, or unavailable for, full-time work .....	12,939	-	12,939	12,647	-	12,647
Vacation .....	1,064	1,064	-	1,052	1,052	-
Illness .....	2,004	1,850	154	1,959	1,820	139
Bad weather .....	1,304	1,304	-	1,224	1,224	-
Industrial dispute .....	2	2	-	2	2	-
Legal or religious holiday .....	1,301	1,301	-	1,293	1,293	-
Full time for this job .....	1,699	-	1,699	1,662	-	1,662
All other reasons .....	2,209	1,554	655	2,059	1,451	608
Average hours:						
Economic reasons .....	22.0	24.3	20.7	22.1	24.4	20.8
Other reasons .....	21.4	26.8	18.9	21.5	26.9	19.0
Worked 30 to 34 hours:						
Economic reasons .....	1,712	872	840	1,637	822	815
Other reasons .....	6,946	4,103	2,843	6,812	4,009	2,803

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-29. Persons at work in nonagricultural industries by class of worker and full- or part-time status**

(Numbers in thousands)

Industry	February 1988								Average hours, total at work	Average hours, workers on full-time schedules
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules						
				Total	40 hours or less	41 to 48 hours	49 hours or more			
Total, 16 years and over . . . . .	105,688	5,117	15,055	85,516	55,638	10,884	18,994	38.7	43.2	
Wage and salary workers . . . . .	97,868	4,383	13,682	79,803	53,010	10,348	16,445	38.7	42.9	
Mining . . . . .	739	7	22	710	384	122	204	45.6	46.5	
Construction . . . . .	5,264	438	240	4,586	3,326	483	777	38.7	41.4	
Manufacturing . . . . .	19,848	540	683	18,625	11,897	3,078	3,650	41.7	43.0	
Durable goods . . . . .	11,769	228	287	11,254	7,157	1,867	2,230	42.2	43.1	
Nondurable goods . . . . .	8,079	311	396	7,372	4,741	1,211	1,420	41.1	42.9	
Transportation and public utilities . . . . .	7,446	218	417	6,811	4,443	863	1,505	41.7	43.6	
Wholesale and retail trade . . . . .	20,610	1,532	4,959	14,119	8,555	2,016	3,548	36.4	43.9	
Finance, insurance, and real estate . . . . .	7,069	15	672	6,282	4,438	758	1,086	39.6	42.0	
Service industries . . . . .	31,832	1,472	6,386	23,974	16,411	2,574	4,989	36.9	42.7	
Private households . . . . .	1,043	155	447	441	282	52	107	26.7	45.4	
All other industries . . . . .	30,789	1,317	5,939	23,533	16,129	2,522	4,882	37.2	42.6	
Public administration . . . . .	5,059	61	304	4,694	3,557	452	685	40.0	41.6	
Self-employed workers . . . . .	7,607	720	1,299	5,588	2,542	527	2,519	40.0	48.0	
Unpaid family workers . . . . .	213	13	74	126	86	9	31	34.5	43.5	

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-30. Persons at work in nonagricultural industries by sex, age, race, marital status, and full- or part-time status**

(Numbers in thousands)

Sex, age, race, and marital status	February 1986							Average hours, total at work	Average hours, workers on full-time schedules
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules					
				Total	40 hours or less	41 hours or more			
<b>TOTAL</b>									
Total, 16 years and over .....	105,688	5,117	15,055	85,516	55,638	29,878	38.7	43.2	
16 to 19 years .....	5,770	425	3,558	1,787	1,411	376	23.8	39.9	
16 to 17 years .....	2,222	66	1,964	192	159	33	16.8	36.8	
18 to 19 years .....	3,548	359	1,594	1,595	1,253	342	28.2	40.3	
20 years and over .....	99,919	4,692	11,497	83,730	54,228	29,502	39.6	43.3	
20 to 24 years .....	12,447	968	2,331	9,148	6,547	2,601	36.2	42.0	
25 years and over .....	87,473	3,725	9,166	74,582	47,680	26,902	40.1	43.4	
25 to 44 years .....	57,579	2,471	5,099	50,009	31,465	18,544	40.6	43.5	
45 to 64 years .....	27,269	1,133	2,820	23,316	15,319	7,997	40.0	42.3	
65 years and over .....	2,624	122	1,246	1,256	897	359	29.2	42.5	
<b>Men, 16 years and over</b> .....	57,342	2,413	4,557	50,372	29,248	21,124	41.7	44.7	
16 to 19 years .....	2,817	179	1,701	937	714	223	24.8	40.6	
16 to 17 years .....	1,099	35	949	115	94	21	17.8	37.2	
18 to 19 years .....	1,718	144	752	822	620	202	29.3	41.1	
20 years and over .....	54,525	2,234	2,856	49,435	28,533	20,902	42.6	44.8	
20 to 24 years .....	6,271	497	977	4,797	3,166	1,631	37.7	43.1	
25 years and over .....	48,253	1,738	1,879	44,636	25,366	19,270	43.2	45.0	
25 to 44 years .....	31,579	1,206	747	29,626	16,363	13,263	43.9	45.2	
45 to 64 years .....	15,204	464	536	14,204	8,457	5,747	43.0	44.6	
65 years and over .....	1,470	67	596	807	546	261	31.5	43.2	
<b>Women, 16 years and over</b> .....	48,346	2,704	10,499	35,143	26,389	8,754	35.3	41.0	
16 to 19 years .....	2,952	245	1,857	850	697	153	22.8	39.1	
16 to 17 years .....	1,123	30	1,016	77	65	12	15.8	38.2	
18 to 19 years .....	1,829	215	841	773	631	142	27.2	39.4	
20 years and over .....	45,394	2,458	8,642	34,294	25,693	8,601	36.1	41.1	
20 to 24 years .....	6,175	471	1,355	4,349	3,378	971	34.7	40.7	
25 years and over .....	39,218	1,988	7,287	29,943	22,314	7,629	36.3	41.2	
25 to 44 years .....	26,000	1,263	4,353	20,384	15,103	5,281	36.8	41.2	
45 to 64 years .....	12,065	669	2,284	9,112	6,862	2,250	36.2	41.2	
65 years and over .....	1,154	55	650	449	352	97	26.3	41.2	
<b>RACE</b>									
White, 16 years and over .....	91,758	4,182	13,568	74,008	46,808	27,200	38.8	43.5	
Men .....	50,403	2,014	4,004	44,385	24,999	19,386	41.9	45.0	
Women .....	41,356	2,168	9,565	29,623	21,811	7,812	35.1	41.2	
Black, 16 years and over .....	10,697	773	1,028	8,896	5,983	1,913	37.9	41.3	
Men .....	5,201	331	360	4,510	3,301	1,209	39.7	42.5	
Women .....	5,497	441	668	4,388	3,683	705	36.1	40.0	
<b>MARITAL STATUS</b>									
Men, 16 years and over:									
Married, spouse present .....	37,017	1,085	1,288	34,644	19,252	15,392	43.6	45.2	
Widowed, divorced, or separated .....	5,686	324	255	5,107	2,957	2,150	42.5	44.9	
Single (never married) .....	14,639	1,004	3,014	10,621	7,040	3,581	36.5	43.2	
Women, 16 years and over:									
Married, spouse present .....	26,917	1,390	6,100	19,427	14,856	4,571	35.1	40.8	
Widowed, divorced, or separated .....	9,314	556	1,182	7,576	5,482	2,094	37.7	41.5	
Single (never married) .....	12,115	757	3,216	8,142	6,054	2,088	33.7	41.2	

A-31. Persons at work in nonfarm occupations by sex and full- or part-time status

(Numbers in thousands)

Occupation and sex	February 1988								Average hours, workers on full-time schedules
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules				Average hours, total at work	
				Total	40 hours or less	41 to 48 hours	49 hours or more		
Total, 16 years and over <sup>1</sup>	105,611	5,109	15,045	85,458	55,518	10,887	19,052	38.8	43.2
Managerial and professional specialty	27,753	554	2,640	24,559	13,673	3,113	7,774	41.9	44.9
Executive, administrative, and managerial	13,327	208	687	12,432	6,462	1,599	4,371	44.1	45.8
Professional specialty	14,426	347	1,953	12,127	7,211	1,513	3,403	40.0	44.0
Technical, sales, and administrative support	34,102	1,352	6,245	26,505	18,415	3,103	4,987	37.4	42.4
Technicians and related support	3,258	32	431	2,796	1,972	363	460	39.2	42.3
Sales occupations	12,939	764	2,752	9,423	4,973	1,172	3,277	38.7	45.6
Administrative support, including clerical	17,905	556	3,062	14,286	11,469	1,569	1,249	36.1	40.3
Service occupations	14,543	1,394	4,161	8,989	6,549	967	1,473	33.3	42.2
Private household	849	120	380	349	223	38	87	26.2	45.3
Protective service	1,813	52	190	1,571	963	241	367	41.1	44.5
Service, except private household and protective	11,882	1,222	3,591	7,069	5,362	688	1,019	32.6	41.5
Precision production, craft, and repair	12,768	687	469	11,612	7,497	1,666	2,450	41.2	43.1
Operators, fabricators, and laborers	16,444	1,121	1,531	13,793	9,386	2,038	2,369	39.1	42.7
Machine operators, assemblers, and inspectors	7,594	391	341	6,862	4,890	1,101	871	39.9	41.7
Transportation and material moving occupations	4,409	247	373	3,788	2,123	542	1,124	42.2	45.7
Handlers, equipment cleaners, helpers, and laborers	4,442	483	817	3,142	2,373	395	374	34.7	41.1
Men, 16 years and over <sup>1</sup>	57,155	2,398	4,519	50,238	29,085	6,830	14,322	41.7	44.8
Managerial and professional specialty	15,467	304	793	14,370	6,863	1,781	5,726	44.8	46.8
Executive, administrative, and managerial	8,118	145	270	7,703	3,423	972	3,308	46.1	47.5
Professional specialty	7,349	159	523	6,668	3,440	809	2,418	43.4	46.1
Technical, sales, and administrative support	12,112	299	1,187	10,625	5,825	1,439	3,361	42.2	45.3
Technicians and related support	1,702	13	129	1,560	1,021	218	321	41.4	43.4
Sales occupations	6,754	200	636	5,918	2,608	750	2,560	44.1	47.5
Administrative support, including clerical	3,656	86	422	3,148	2,196	472	479	39.0	42.2
Service occupations	5,756	389	1,157	4,210	2,901	500	809	36.8	43.5
Private household	23	3	16	4	4	-	-	( <sup>1</sup> )	( <sup>1</sup> )
Protective service	1,573	32	118	1,423	870	211	342	42.4	44.7
Service, except private household and protective	4,159	354	1,022	2,783	2,027	290	467	34.8	42.8
Precision production, craft, and repair	11,683	619	347	10,717	6,813	1,557	2,347	41.5	43.3
Operators, fabricators, and laborers	12,137	788	1,035	10,314	6,682	1,552	2,080	39.9	43.4
Machine operators, assemblers, and inspectors	4,505	186	140	4,180	2,802	711	667	41.2	42.7
Transportation and material moving occupations	3,959	204	230	3,525	1,934	513	1,078	43.1	45.9
Handlers, equipment cleaners, helpers, and laborers	3,673	398	665	2,610	1,947	329	335	34.8	41.2
Women, 16 years and over <sup>1</sup>	48,456	2,710	10,526	35,220	26,433	4,057	4,731	35.3	41.0
Managerial and professional specialty	12,286	251	1,847	10,189	6,809	1,332	2,043	38.4	42.2
Executive, administrative, and managerial	5,209	63	417	4,730	3,039	627	1,063	41.0	43.0
Professional specialty	7,077	188	1,430	5,459	3,770	704	985	36.4	41.5
Technical, sales, and administrative support	21,990	1,054	5,057	15,880	12,589	1,664	1,626	34.8	40.4
Technicians and related support	1,556	19	301	1,236	951	145	139	36.8	40.9
Sales occupations	6,185	565	2,116	3,505	2,365	422	717	32.8	42.5
Administrative support, including clerical	14,249	470	2,640	11,139	9,272	1,097	770	35.4	39.7
Service occupations	8,787	1,005	3,004	4,778	3,647	467	664	31.0	41.0
Private household	825	117	364	344	219	38	87	26.5	45.3
Protective service	240	20	72	148	92	30	25	32.3	42.0
Service, except private household and protective	7,722	868	2,569	4,286	3,335	398	552	31.4	40.7
Precision production, craft, and repair	1,085	68	122	895	684	108	103	37.5	41.0
Operators, fabricators, and laborers	4,307	333	496	3,478	2,703	486	289	37.0	40.5
Machine operators, assemblers, and inspectors	3,089	206	201	2,682	2,088	390	204	38.1	40.2
Transportation and material moving occupations	450	43	143	264	189	29	46	34.1	42.5
Handlers, equipment cleaners, helpers, and laborers	769	84	152	532	426	67	39	34.4	40.7

<sup>1</sup> Excludes farming, forestry, and fishing occupations

<sup>2</sup> Data not shown where base is less than 75,000.



**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-32. Employment status of the noninstitutional population, including Armed forces stationed in the United States, by sex, seasonally adjusted**

(Numbers in thousands)

Employment status and sex	1987												1988	
	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	
<b>TOTAL</b>														
Noninstitutional population <sup>1</sup>	183,738	183,915	184,079	184,259	184,421	184,605	184,738	184,904	185,052	185,225	185,370	185,571	185,705	
Labor force <sup>2</sup>	120,970	120,982	121,098	121,633	121,326	121,610	122,042	121,706	122,128	122,349	122,472	122,924	123,084	
Percent of population <sup>2</sup>	65.8	65.8	65.8	66.0	65.8	65.9	66.1	65.8	66.0	66.1	66.1	66.2	66.3	
Total employed <sup>3</sup>	113,084	113,191	113,541	114,060	114,018	114,177	114,786	114,615	114,951	115,259	115,494	115,878	116,145	
Employment-population ratio <sup>3</sup>	61.5	61.5	61.7	61.9	61.8	61.9	62.1	62.0	62.1	62.2	62.3	62.4	62.5	
Resident Armed Forces	1,740	1,736	1,735	1,726	1,718	1,720	1,736	1,743	1,741	1,755	1,750	1,749	1,736	
Civilian employed	111,344	111,455	111,806	112,334	112,300	112,639	113,050	112,872	113,210	113,504	113,744	114,129	114,409	
Agriculture	3,225	3,237	3,250	3,269	3,192	3,212	3,143	3,184	3,249	3,172	3,215	3,293	3,228	
Nonagricultural industries	108,119	108,218	108,556	109,065	109,108	109,427	109,907	109,688	109,961	110,332	110,529	110,836	111,182	
Unemployed	7,886	7,791	7,557	7,573	7,308	7,251	7,256	7,091	7,177	7,090	6,978	7,046	6,938	
Unemployment rate <sup>4</sup>	6.5	6.4	6.2	6.2	6.0	6.0	5.9	5.8	5.9	5.8	5.7	5.7	5.6	
Not in labor force	62,768	62,933	62,981	62,626	63,095	62,995	62,696	63,198	62,924	62,876	62,898	62,647	62,621	
<b>Men</b>														
Noninstitutional population <sup>1</sup>	88,099	88,186	88,271	88,361	88,442	88,534	88,598	88,683	88,756	88,849	88,924	89,033	89,099	
Labor force <sup>2</sup>	67,655	67,590	67,604	67,802	67,623	67,671	67,937	67,776	67,947	68,019	68,030	68,243	68,343	
Percent of population <sup>2</sup>	76.8	76.6	76.6	76.7	76.5	76.4	76.7	76.4	76.6	76.6	76.5	76.6	76.7	
Total employed <sup>3</sup>	63,281	63,263	63,390	63,543	63,543	63,711	63,916	63,949	64,048	64,174	64,245	64,396	64,636	
Employment-population ratio <sup>3</sup>	71.8	71.7	71.8	71.9	71.8	72.0	72.1	72.1	72.2	72.2	72.2	72.3	72.5	
Resident Armed Forces	1,584	1,575	1,575	1,566	1,559	1,561	1,575	1,581	1,580	1,583	1,589	1,588	1,577	
Civilian employed	61,697	61,688	61,815	61,977	61,984	62,150	62,341	62,368	62,468	62,581	62,656	62,808	63,059	
Unemployed	4,374	4,327	4,214	4,259	4,080	3,960	4,021	3,827	3,899	3,845	3,785	3,847	3,707	
Unemployment rate <sup>4</sup>	6.5	6.4	6.2	6.3	6.0	5.9	5.9	5.6	5.7	5.7	5.6	5.6	5.4	
Not in labor force	20,444	20,596	20,667	20,559	20,819	20,863	20,661	20,907	20,809	20,830	20,894	20,790	20,756	
<b>Women</b>														
Noninstitutional population <sup>1</sup>	95,639	95,729	95,808	95,898	95,979	96,071	96,140	96,221	96,295	96,376	96,446	96,538	96,606	
Labor force <sup>2</sup>	53,315	53,392	53,494	53,831	53,703	53,939	54,105	53,930	54,181	54,330	54,442	54,681	54,740	
Percent of population <sup>2</sup>	55.7	55.8	55.8	56.1	56.0	56.1	56.3	56.0	56.3	56.4	56.4	56.6	56.7	
Total employed <sup>3</sup>	49,803	49,928	50,151	50,517	50,475	50,648	50,870	50,666	50,903	51,085	51,249	51,482	51,509	
Employment-population ratio <sup>3</sup>	52.1	52.2	52.3	52.7	52.6	52.7	52.9	52.7	52.9	53.0	53.1	53.3	53.3	
Resident Armed Forces	156	161	160	160	159	159	161	162	161	162	161	161	159	
Civilian employed	49,647	49,767	49,991	50,357	50,316	50,489	50,709	50,504	50,742	50,923	51,088	51,321	51,350	
Unemployed	3,512	3,464	3,343	3,314	3,228	3,291	3,235	3,264	3,278	3,245	3,193	3,200	3,231	
Unemployment rate <sup>4</sup>	6.6	6.5	6.2	6.2	6.0	6.1	6.0	6.1	6.1	6.0	5.9	5.9	5.9	
Not in labor force	42,324	42,337	42,314	42,067	42,276	42,132	42,035	42,291	42,114	42,046	42,004	41,857	41,866	

<sup>1</sup> Includes members of the Armed Forces stationed in the United States.

<sup>2</sup> Labor force as a percent of the noninstitutional population.

<sup>3</sup> Total employment as a percent of the noninstitutional population.

<sup>4</sup> Unemployment as a percent of the labor force (including the resident

Armed Forces).

NOTE: The population and Armed Forces figures are not adjusted for seasonal variation. Detail for the seasonally adjusted data shown in tables A-32 through A-41 will not necessarily add to totals because of the independent seasonal adjustment of the various series.

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-33. Employment status of the civilian noninstitutional population by sex and age, seasonally adjusted**

(Numbers in thousands)

Employment status, sex, and age	1987												1988	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	
<b>TOTAL</b>														
Civilian noninstitutional population¹	181,998	182,179	182,344	182,533	182,703	182,885	183,002	183,161	183,311	183,470	183,620	183,822	183,969	
Civilian labor force	119,230	119,246	119,363	119,907	119,608	119,890	120,306	119,963	120,387	120,594	120,722	121,175	121,348	
Percent of population	65.5	65.5	65.5	65.7	65.5	65.6	65.7	65.5	65.7	65.7	65.7	65.9	66.0	
Employed	111,344	111,455	111,806	112,334	112,300	112,639	113,050	112,872	113,210	113,504	113,744	114,129	114,409	
Employment-population ratio²	61.2	61.2	61.3	61.5	61.5	61.6	61.9	61.6	61.8	61.9	61.9	62.1	62.2	
Unemployed	7,886	7,791	7,557	7,573	7,308	7,251	7,256	7,091	7,177	7,090	6,978	7,046	6,938	
Unemployment rate	6.6	6.5	6.3	6.3	6.1	6.0	6.0	5.9	6.0	5.9	5.8	5.8	5.7	
<b>Men, 20 years and over</b>														
Civilian noninstitutional population¹	79,216	79,303	79,387	79,474	79,536	79,625	79,668	79,740	79,807	79,885	80,002	80,120	80,203	
Civilian labor force	51,930	51,933	51,970	52,129	52,054	52,106	52,083	52,085	52,211	52,299	52,248	52,440	52,696	
Percent of population	78.2	78.1	78.1	78.2	78.0	78.0	77.9	77.9	78.0	78.0	77.8	77.9	78.2	
Employed	58,324	58,380	58,516	58,673	58,632	58,783	58,825	58,557	59,037	59,164	59,185	59,287	59,625	
Employment-population ratio²	73.6	73.6	73.7	73.8	73.7	73.8	73.8	73.9	74.0	74.1	74.0	74.0	74.3	
Agriculture	2,317	2,361	2,378	2,383	2,316	2,333	2,289	2,345	2,343	2,297	2,298	2,323	2,280	
Nonagricultural industries	56,007	56,019	56,138	56,290	56,316	56,450	56,536	56,622	56,694	56,867	56,887	56,964	57,344	
Unemployed	3,606	3,553	3,454	3,456	3,422	3,323	3,258	3,118	3,174	3,135	3,063	3,154	3,071	
Unemployment rate	5.8	5.7	5.6	5.6	5.5	5.4	5.2	5.0	5.1	5.0	4.9	5.1	4.9	
Not in labor force	17,286	17,370	17,417	17,345	17,482	17,519	17,585	17,655	17,596	17,586	17,754	17,680	17,507	
<b>Women, 20 years and over</b>														
Civilian noninstitutional population¹	88,237	88,321	88,395	88,464	88,546	88,632	88,685	88,785	88,843	88,923	89,010	89,110	89,178	
Civilian labor force	49,343	49,414	49,494	49,728	49,722	49,886	49,969	49,922	50,095	50,254	50,361	50,558	50,640	
Percent of population	55.9	55.9	56.0	56.2	56.2	56.3	56.3	56.2	56.4	56.5	56.6	56.7	56.8	
Employed	46,485	46,582	46,761	47,028	47,088	47,206	47,308	47,251	47,480	47,634	47,750	47,977	48,005	
Employment-population ratio²	52.7	52.7	52.9	53.2	53.2	53.3	53.3	53.2	53.4	53.6	53.6	53.8	53.8	
Agriculture	634	602	603	629	619	620	609	600	636	636	643	646	654	
Nonagricultural industries	45,851	45,980	46,158	46,399	46,469	46,586	46,699	46,651	46,844	46,998	47,107	47,331	47,351	
Unemployed	2,858	2,832	2,733	2,700	2,634	2,680	2,661	2,671	2,615	2,620	2,611	2,581	2,635	
Unemployment rate	5.8	5.7	5.5	5.4	5.3	5.4	5.3	5.4	5.2	5.2	5.2	5.1	5.2	
Not in labor force	38,894	38,907	38,901	38,736	38,824	38,746	38,716	38,863	38,748	38,669	38,649	38,552	38,538	
<b>Both sexes, 16 to 19 years</b>														
Civilian noninstitutional population¹	14,546	14,555	14,562	14,595	14,621	14,628	14,649	14,637	14,661	14,663	14,609	14,592	14,588	
Civilian labor force	7,957	7,899	7,899	8,050	7,832	7,898	8,254	7,956	8,081	8,041	8,113	8,177	8,011	
Percent of population	54.7	54.3	54.2	55.2	53.6	54.0	56.3	54.4	55.1	54.8	55.5	56.0	54.9	
Employed	6,535	6,493	6,529	6,633	6,580	6,650	6,917	6,654	6,693	6,706	6,809	6,865	6,779	
Employment-population ratio²	44.9	44.6	44.8	45.4	45.0	45.5	47.2	45.5	45.7	45.7	46.6	47.0	46.5	
Agriculture	274	274	269	257	257	259	245	239	270	239	274	323	293	
Nonagricultural industries	6,261	6,219	6,260	6,376	6,323	6,391	6,672	6,415	6,423	6,467	6,535	6,542	6,486	
Unemployed	1,422	1,406	1,370	1,417	1,252	1,248	1,337	1,302	1,388	1,335	1,304	1,312	1,232	
Unemployment rate	17.9	17.8	17.3	17.6	16.0	15.8	16.2	16.4	17.2	16.6	16.1	16.0	15.4	
Not in labor force	6,589	6,656	6,663	6,545	6,789	6,730	6,395	6,661	6,580	6,622	6,496	6,415	6,577	

<sup>1</sup> The population figures are not adjusted for seasonal variation.

population.

<sup>2</sup> Civilian employment as a percent of the civilian noninstitutional

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-34. Employment status of the civilian noninstitutional population by race, sex, age, and Hispanic origin, seasonally adjusted**

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	1987											1988	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
<b>WHITE</b>													
Civilian noninstitutional population <sup>1</sup> ..	156,431	156,561	156,676	156,811	156,930	157,058	157,134	157,242	157,342	157,449	157,552	157,676	157,773
Civilian labor force ..	102,825	102,836	102,972	103,416	103,150	103,248	103,516	103,357	103,669	103,731	103,907	104,252	104,530
Percent of population ..	65.7	65.7	65.7	65.9	65.7	65.7	65.9	65.7	65.9	65.9	66.0	66.1	66.3
Employed ..	97,001	97,074	97,338	97,829	97,698	97,917	98,181	98,069	98,317	98,492	98,779	99,044	99,474
Employment-population ratio <sup>2</sup> ..	62.0	62.0	62.1	62.4	62.3	62.3	62.5	62.4	62.5	62.6	62.7	62.8	63.0
Unemployed ..	5,824	5,762	5,634	5,587	5,452	5,331	5,335	5,288	5,352	5,239	5,128	5,208	5,056
Unemployment rate ..	5.7	5.6	5.5	5.4	5.3	5.2	5.2	5.1	5.2	5.1	4.9	5.0	4.8
<b>Men, 20 years and over</b>													
Civilian labor force ..	54,121	54,097	54,124	54,238	54,227	54,198	54,183	54,213	54,375	54,381	54,368	54,455	54,650
Percent of population ..	78.5	78.4	78.4	78.5	78.4	78.3	78.2	78.2	78.4	78.3	78.2	78.3	78.5
Employed ..	51,366	51,371	51,460	51,626	51,591	51,670	51,715	51,803	51,864	51,969	52,046	52,053	52,389
Employment-population ratio <sup>2</sup> ..	74.5	74.5	74.5	74.7	74.6	74.7	74.7	74.7	74.8	74.9	74.9	74.8	75.2
Unemployed ..	2,755	2,726	2,664	2,612	2,636	2,529	2,468	2,410	2,511	2,412	2,322	2,402	2,260
Unemployment rate ..	5.1	5.0	4.9	4.8	4.9	4.7	4.6	4.4	4.6	4.4	4.3	4.4	4.1
<b>Women, 20 years and over</b>													
Civilian labor force ..	41,780	41,877	41,984	42,182	42,137	42,241	42,332	42,308	42,379	42,464	42,569	42,710	42,915
Percent of population ..	55.3	55.4	55.5	55.7	55.6	55.7	55.8	55.7	55.7	55.8	55.9	56.1	56.3
Employed ..	39,755	39,890	40,032	40,268	40,265	40,343	40,449	40,409	40,538	40,606	40,712	40,896	40,985
Employment-population ratio <sup>2</sup> ..	52.6	52.7	52.9	53.1	53.1	53.2	53.3	53.2	53.3	53.4	53.5	53.7	53.8
Unemployed ..	2,025	1,987	1,952	1,914	1,872	1,898	1,883	1,899	1,841	1,858	1,857	1,813	1,930
Unemployment rate ..	4.8	4.7	4.6	4.5	4.4	4.5	4.4	4.5	4.3	4.4	4.4	4.2	4.5
<b>Both sexes, 16 to 19 years</b>													
Civilian labor force ..	6,924	6,862	6,864	6,996	6,786	6,809	7,001	6,836	6,915	6,886	6,970	7,087	6,965
Percent of population ..	58.1	57.5	57.5	58.5	56.7	56.9	58.5	57.2	57.9	57.7	58.6	59.6	58.6
Employed ..	5,880	5,813	5,846	5,935	5,842	5,904	6,017	5,857	5,915	5,917	6,021	6,095	6,100
Employment-population ratio <sup>2</sup> ..	49.4	48.7	48.9	49.7	48.8	49.3	50.3	49.0	49.5	49.6	50.6	51.2	51.3
Unemployed ..	1,044	1,049	1,018	1,061	944	905	984	979	1,000	969	949	992	865
Unemployment rate ..	15.1	15.3	14.8	15.2	13.9	13.3	14.1	14.3	14.5	14.1	13.6	14.0	12.4
Men ..	16.0	16.8	17.0	17.0	14.8	13.5	15.2	15.1	15.1	14.8	14.9	14.4	12.2
Women ..	14.1	13.7	13.3	13.3	13.0	13.1	12.9	13.4	13.8	13.3	12.3	13.6	12.7
<b>BLACK</b>													
Civilian noninstitutional population <sup>1</sup> ..	20,218	20,249	20,279	20,312	20,341	20,373	20,396	20,426	20,453	20,482	20,508	20,539	20,569
Civilian labor force ..	12,894	12,853	12,778	12,889	12,892	13,039	13,150	13,028	13,152	13,193	13,215	13,222	13,168
Percent of population ..	63.8	63.5	63.0	63.5	63.4	64.0	64.5	63.8	64.3	64.4	64.4	64.4	64.0
Employed ..	11,086	11,072	11,114	11,129	11,238	11,381	11,513	11,421	11,556	11,589	11,605	11,608	11,504
Employment-population ratio <sup>2</sup> ..	54.8	54.7	54.8	54.8	55.2	55.9	56.4	55.9	56.5	56.6	56.6	56.5	55.9
Unemployed ..	1,808	1,781	1,664	1,760	1,654	1,658	1,637	1,607	1,596	1,604	1,610	1,614	1,663
Unemployment rate ..	14.0	13.9	13.0	13.7	12.8	12.7	12.4	12.3	12.1	12.2	12.2	12.2	12.6
<b>Men, 20 years and over</b>													
Civilian labor force ..	5,996	5,995	5,980	6,037	6,003	6,061	6,054	6,032	6,023	6,045	6,043	6,115	6,166
Percent of population ..	74.9	74.8	74.4	75.0	74.5	75.1	74.9	74.5	74.3	74.5	74.3	75.0	75.6
Employed ..	5,283	5,298	5,322	5,296	5,319	5,384	5,407	5,421	5,431	5,430	5,430	5,497	5,472
Employment-population ratio <sup>2</sup> ..	66.0	66.1	66.3	65.8	66.0	66.7	66.9	67.0	67.0	66.9	66.8	67.5	67.1
Unemployed ..	713	697	658	741	684	677	647	611	592	615	613	618	694
Unemployment rate ..	11.9	11.6	11.0	12.3	11.4	11.2	10.7	10.1	9.8	10.2	10.1	10.1	11.3
<b>Women, 20 years and over</b>													
Civilian labor force ..	6,005	5,994	5,943	5,987	6,033	6,116	6,122	6,067	6,177	6,207	6,224	6,244	6,131
Percent of population ..	59.7	59.5	58.9	59.3	59.6	60.4	60.3	59.7	60.7	60.9	61.0	61.1	59.9
Employed ..	5,249	5,230	5,254	5,292	5,349	5,417	5,430	5,357	5,495	5,537	5,544	5,550	5,495
Employment-population ratio <sup>2</sup> ..	52.2	51.9	52.1	52.4	52.9	53.5	53.5	52.7	54.0	54.3	54.3	54.3	53.7
Unemployed ..	756	764	689	695	684	699	692	710	682	670	680	694	636
Unemployment rate ..	12.6	12.7	11.6	11.6	11.3	11.4	11.3	11.7	11.0	10.8	10.9	11.1	10.4

See footnotes at end of table.

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-34. Employment status of the civilian noninstitutional population by race, sex, age, and Hispanic origin, seasonally adjusted—Continued**

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	1987											1988	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
<b>BLACK—Continued</b>													
<b>Both sexes, 16 to 19 years</b>													
Civilian labor force .....	893	864	855	865	856	862	974	929	952	941	948	863	870
Percent of population .....	41.6	40.1	39.6	40.0	39.5	39.8	44.9	42.8	43.8	43.3	43.7	39.8	40.0
Employed .....	554	544	538	541	570	580	676	643	630	622	631	561	537
Employment-population ratio <sup>2</sup> .....	25.8	25.2	24.9	25.0	26.3	26.8	31.2	29.6	29.0	28.6	29.1	25.8	24.7
Unemployed .....	339	320	317	324	286	282	298	286	322	319	317	302	333
Unemployment rate .....	38.0	37.0	37.1	37.5	33.4	32.7	30.6	30.8	33.8	33.9	33.4	35.0	38.3
Men .....	37.9	36.1	37.8	38.3	31.4	32.4	33.7	31.5	32.5	32.2	33.5	35.1	42.0
Women .....	38.0	38.0	36.3	36.6	35.4	33.1	27.1	30.0	35.2	35.8	33.4	34.9	34.7
<b>HISPANIC ORIGIN</b>													
Civilian noninstitutional population <sup>1</sup> .....	12,692	12,732	12,770	12,809	12,848	12,887	12,925	12,965	13,003	13,043	13,082	13,115	13,153
Civilian labor force .....	8,423	8,395	8,468	8,549	8,468	8,447	8,549	8,581	8,654	8,763	8,772	8,879	9,017
Percent of population .....	66.4	65.9	66.3	66.7	65.9	65.5	66.1	66.2	66.6	67.2	67.1	67.7	68.6
Employed .....	7,614	7,632	7,686	7,797	7,738	7,762	7,856	7,877	7,935	7,978	8,058	8,238	8,266
Employment-population ratio <sup>2</sup> .....	60.0	59.9	60.2	60.9	60.2	60.2	60.8	60.8	61.0	61.2	61.6	62.8	62.9
Unemployed .....	809	763	782	752	730	685	693	704	719	785	714	642	749
Unemployment rate .....	9.6	9.1	9.2	8.8	8.6	8.1	8.1	8.2	8.3	9.0	8.1	7.2	8.3

<sup>1</sup> The population figures are not adjusted for seasonal variation.

<sup>2</sup> Civilian employment as a percent of the civilian noninstitutional population.

NOTE. Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

**A-35. Employed civilians by selected social and economic categories, seasonally adjusted**

(In thousands)

Category	1987											1988	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
<b>CHARACTERISTIC</b>													
Total .....	111,344	111,455	111,806	112,334	112,300	112,639	113,050	112,872	113,210	113,504	113,744	114,129	114,409
Married men, spouse present .....	39,958	40,054	40,021	40,075	40,120	40,262	40,308	40,404	40,556	40,645	40,711	40,404	40,475
Married women, spouse present .....	27,837	27,966	28,130	28,314	28,282	28,283	28,189	28,069	28,099	28,175	28,249	28,441	28,707
Women who maintain families .....	5,925	5,946	5,971	5,963	6,011	6,033	6,107	6,151	6,178	6,237	6,227	6,168	6,157
<b>MAJOR INDUSTRY AND CLASS OF WORKER</b>													
Agriculture:													
Wage and salary workers .....	1,640	1,689	1,599	1,672	1,622	1,625	1,591	1,624	1,705	1,595	1,599	1,666	1,677
Self-employed workers .....	1,440	1,416	1,488	1,429	1,403	1,424	1,393	1,415	1,430	1,407	1,450	1,454	1,414
Unpaid family workers .....	132	152	170	165	162	153	155	139	140	155	156	138	114
Nonagricultural industries:													
Wage and salary workers .....	99,772	99,863	100,106	100,634	100,510	100,825	101,241	101,282	101,522	101,943	101,997	102,507	102,683
Government .....	16,553	16,594	16,518	16,708	16,920	16,876	16,794	16,928	17,033	17,118	17,064	17,197	16,948
Private industries .....	83,219	83,269	83,588	83,926	83,590	83,949	84,447	84,354	84,489	84,825	84,933	85,310	85,735
Private households .....	1,213	1,227	1,234	1,240	1,163	1,212	1,175	1,100	1,222	1,286	1,200	1,147	1,170
Other industries .....	82,006	82,042	82,354	82,686	82,427	82,737	83,272	83,254	83,267	83,539	83,733	84,163	84,565
Self-employed workers .....	8,166	8,082	8,139	8,157	8,293	8,216	8,214	8,204	8,274	8,222	8,280	8,150	8,312
Unpaid family workers .....	254	270	268	276	274	266	248	297	242	235	248	237	228
<b>PERSONS AT WORK PART TIME<sup>1</sup></b>													
All industries:													
Part time for economic reasons .....	5,766	5,459	5,394	5,333	5,254	5,428	5,283	5,261	5,353	5,534	5,262	5,367	5,566
Slack work .....	2,501	2,438	2,345	2,292	2,345	2,429	2,468	2,213	2,377	2,408	2,284	2,396	2,478
Could only find part-time work .....	2,773	2,707	2,725	2,677	2,623	2,683	2,526	2,683	2,655	2,696	2,638	2,640	2,598
Voluntary part time .....	14,110	14,201	13,940	14,491	14,836	14,437	14,573	14,415	14,488	14,523	14,711	14,571	14,572
Nonagricultural industries:													
Part time for economic reasons .....	5,458	5,180	5,104	5,058	4,979	5,154	5,016	4,986	5,067	5,241	5,004	5,145	5,254
Slack work .....	2,315	2,234	2,163	2,126	2,176	2,261	2,265	2,034	2,196	2,209	2,111	2,260	2,327
Could only find part-time work .....	2,682	2,612	2,648	2,603	2,530	2,599	2,463	2,603	2,557	2,597	2,552	2,566	2,457
Voluntary part time .....	13,635	13,717	13,544	13,995	14,334	13,953	14,099	13,987	14,011	14,064	14,222	14,096	14,123

<sup>1</sup> Excludes persons "with a job but not at work" during the survey

period for such reasons as vacation, illness, or industrial dispute.

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-36. Employed civilians by sex and age, seasonally adjusted**

(In thousands)

Sex and age	1987												1988	
	Feb	Mar.	Apr.	May	June	July	Aug.	Sept	Oct	Nov.	Dec.	Jan.	Feb	
Total, 16 years and over	111,344	111,455	111,806	112,334	112,300	112,639	113,050	112,872	113,210	113,504	113,744	114,129	114,409	
16 to 24 years	20,229	20,148	20,109	20,208	20,069	20,184	20,475	20,116	20,096	20,065	20,112	20,312	20,271	
16 to 19 years	6,535	6,493	6,529	6,633	6,580	6,650	6,917	6,654	6,693	6,706	6,809	6,865	6,779	
16 to 17 years	2,721	2,670	2,655	2,702	2,694	2,760	2,849	2,754	2,768	2,734	2,826	2,776	2,752	
18 to 19 years	3,835	3,834	3,872	3,930	3,871	3,875	3,996	3,911	3,936	3,985	3,994	4,061	4,045	
20 to 24 years	13,694	13,655	13,580	13,575	13,489	13,534	13,558	13,462	13,403	13,359	13,303	13,447	13,491	
25 years and over	91,132	91,343	91,675	92,087	92,234	92,551	92,606	92,735	93,071	93,424	93,625	93,778	94,118	
25 to 54 years	76,683	76,900	77,294	77,621	77,726	78,015	78,202	78,307	78,477	78,731	78,916	79,170	79,351	
55 years and over	14,370	14,391	14,373	14,452	14,537	14,497	14,498	14,491	14,641	14,663	14,716	14,581	14,673	
Men, 16 years and over	61,697	61,688	61,815	61,977	61,984	62,150	62,341	62,368	62,468	62,581	62,656	62,808	63,059	
16 to 24 years	10,546	10,463	10,423	10,392	10,366	10,441	10,586	10,448	10,403	10,370	10,369	10,456	10,444	
16 to 19 years	3,373	3,308	3,299	3,304	3,352	3,367	3,516	3,401	3,431	3,417	3,471	3,521	3,434	
16 to 17 years	1,413	1,362	1,353	1,362	1,373	1,417	1,410	1,391	1,409	1,390	1,451	1,444	1,406	
18 to 19 years	1,977	1,953	1,948	1,940	1,960	1,938	2,046	2,021	2,034	2,040	2,035	2,053	2,046	
20 to 24 years	7,173	7,155	7,124	7,088	7,014	7,074	7,070	7,047	6,972	6,953	6,898	6,935	7,010	
25 years and over	51,178	51,261	51,385	51,554	51,601	51,733	51,781	51,900	52,047	52,210	52,299	52,338	52,623	
25 to 54 years	42,688	42,743	42,904	43,002	43,071	43,203	43,289	43,408	43,488	43,592	43,690	43,848	43,992	
55 years and over	8,467	8,507	8,480	8,544	8,561	8,524	8,503	8,514	8,580	8,605	8,629	8,470	8,567	
Women, 16 years and over	49,647	49,767	49,991	50,357	50,316	50,489	50,709	50,504	50,742	50,923	51,088	51,321	51,350	
16 to 24 years	9,683	9,685	9,686	9,816	9,703	9,743	9,889	9,668	9,693	9,695	9,743	9,857	9,826	
16 to 19 years	3,162	3,185	3,230	3,329	3,228	3,283	3,401	3,253	3,262	3,289	3,338	3,344	3,345	
16 to 17 years	1,308	1,308	1,302	1,340	1,321	1,343	1,439	1,363	1,359	1,344	1,375	1,332	1,346	
18 to 19 years	1,858	1,881	1,924	1,990	1,911	1,937	1,950	1,890	1,902	1,945	1,959	2,008	1,999	
20 to 24 years	6,521	6,500	6,456	6,487	6,475	6,460	6,488	6,415	6,431	6,406	6,405	6,513	6,481	
25 years and over	39,954	40,082	40,290	40,533	40,533	40,818	40,825	40,835	41,024	41,214	41,326	41,440	41,495	
25 to 54 years	34,015	34,157	34,390	34,619	34,655	34,812	34,913	34,899	34,989	35,139	35,226	35,322	35,359	
55 years and over	5,903	5,884	5,893	5,908	5,976	5,973	5,995	5,977	6,061	6,058	6,087	6,111	6,106	

**A-37. Unemployed persons by sex and age, seasonally adjusted**

(In thousands)

Sex and age	1987											1988	
	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Oct.	Nov	Dec	Jan	Feb.
Total, 16 years and over	7,886	7,791	7,557	7,573	7,308	7,251	7,256	7,091	7,177	7,090	6,978	7,046	6,938
16 to 24 years	3,015	2,951	2,902	2,895	2,756	2,701	2,736	2,692	2,689	2,641	2,547	2,659	2,525
16 to 19 years	1,422	1,406	1,370	1,417	1,252	1,248	1,337	1,302	1,388	1,335	1,304	1,312	1,232
16 to 17 years	672	665	620	717	623	586	638	618	710	649	613	638	580
18 to 19 years	754	741	733	702	657	624	688	701	679	691	688	689	655
20 to 24 years	1,593	1,545	1,532	1,478	1,504	1,453	1,399	1,390	1,301	1,306	1,243	1,347	1,293
25 years and over	4,879	4,838	4,667	4,657	4,502	4,538	4,544	4,445	4,482	4,442	4,412	4,393	4,416
25 to 54 years	4,421	4,339	4,143	4,134	4,042	4,078	4,050	3,931	3,993	3,909	3,939	3,896	3,926
55 years and over	463	503	505	532	475	462	483	499	474	513	488	527	499
Men, 16 years and over	4,374	4,327	4,214	4,259	4,080	3,960	4,021	3,827	3,892	3,845	3,785	3,847	3,707
16 to 24 years	1,644	1,586	1,576	1,586	1,474	1,415	1,518	1,435	1,432	1,414	1,378	1,456	1,333
16 to 19 years	768	774	760	803	658	637	763	709	725	710	722	693	636
16 to 17 years	365	347	360	401	325	292	363	341	372	356	347	348	285
18 to 19 years	408	426	401	402	357	307	387	382	354	355	367	360	354
20 to 24 years	876	812	816	783	816	778	755	726	707	704	656	763	697
25 years and over	2,747	2,735	2,651	2,648	2,585	2,535	2,528	2,427	2,462	2,419	2,390	2,391	2,390
25 to 54 years	2,456	2,413	2,304	2,310	2,271	2,238	2,215	2,139	2,182	2,109	2,112	2,070	2,095
55 years and over	300	318	327	348	301	300	302	283	277	313	282	351	305
Women, 16 years and over	3,512	3,464	3,343	3,314	3,228	3,291	3,235	3,264	3,278	3,245	3,193	3,200	3,231
16 to 24 years	1,371	1,365	1,326	1,309	1,282	1,286	1,218	1,257	1,257	1,227	1,169	1,203	1,192
16 to 19 years	654	632	610	614	594	611	574	593	663	625	582	619	596
16 to 17 years	307	318	260	316	298	294	275	277	338	293	266	290	295
18 to 19 years	346	315	332	300	300	317	301	319	325	336	321	329	301
20 to 24 years	717	733	716	695	688	675	644	664	594	602	587	584	596
25 years and over	2,132	2,103	2,016	2,009	1,917	2,003	2,016	2,018	2,020	2,023	2,022	2,002	2,026
25 to 54 years	1,965	1,926	1,839	1,824	1,771	1,840	1,835	1,792	1,811	1,800	1,827	1,826	1,831
55 years and over	163	185	178	184	174	162	181	216	197	200	206	175	194



**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-38. Unemployment rates by sex and age, seasonally adjusted**

(Civilian workers)

Sex and age	1987											1988	
	Feb	Mar.	Apr	May	June	July	Aug.	Sept	Oct	Nov	Dec	Jan	Feb.
Total, 16 years and over ...	6.6	6.5	6.3	6.3	6.1	6.0	6.0	5.9	6.0	5.9	5.8	5.8	5.7
16 to 24 years .....	13.0	12.8	12.6	12.5	12.1	11.8	11.8	11.8	11.8	11.6	11.2	11.6	11.1
16 to 19 years .....	17.9	17.8	17.3	17.6	16.0	15.8	16.2	16.4	17.2	16.6	16.1	16.0	15.4
16 to 17 years .....	19.8	19.9	18.9	21.0	18.8	17.5	18.3	18.3	20.4	19.2	17.8	18.7	17.4
18 to 19 years .....	16.4	16.2	15.9	15.2	14.5	13.9	14.7	15.2	14.7	14.8	14.7	14.5	13.9
20 to 24 years ..	10.4	10.2	10.1	9.8	10.0	9.7	9.4	9.4	8.8	8.9	8.5	9.1	8.7
25 years and over ...	5.1	5.0	4.8	4.8	4.7	4.7	4.7	4.6	4.6	4.5	4.5	4.5	4.5
25 to 54 years .....	5.5	5.3	5.1	5.1	4.9	5.0	4.9	4.8	4.8	4.7	4.8	4.7	4.7
55 years and over .....	3.1	3.4	3.4	3.6	3.2	3.1	3.2	3.3	3.1	3.4	3.2	3.5	3.3
Men, 16 years and over .....	6.6	6.6	6.4	6.4	6.2	6.0	6.1	5.8	5.9	5.8	5.7	5.8	5.6
16 to 24 years .....	13.5	13.2	13.1	13.2	12.4	11.6	12.5	12.1	12.1	12.0	11.7	12.2	11.3
16 to 19 years .....	18.5	19.0	18.7	19.6	16.4	15.9	17.8	17.3	17.4	17.2	17.2	16.4	15.6
16 to 17 years .....	20.5	20.3	21.0	22.7	19.1	17.1	20.5	19.7	20.9	20.4	19.3	19.4	16.9
18 to 19 years .....	17.1	17.9	17.1	17.2	15.4	13.7	15.9	15.9	14.8	14.8	15.3	14.9	14.7
20 to 24 years .....	10.9	10.2	10.3	9.9	10.4	9.9	9.6	9.3	9.2	9.2	8.7	9.9	9.0
25 years and over .....	5.1	5.1	4.9	4.9	4.8	4.7	4.7	4.5	4.5	4.4	4.4	4.4	4.3
25 to 54 years .....	5.4	5.3	5.1	5.1	5.0	4.9	4.9	4.7	4.8	4.6	4.6	4.5	4.5
55 years and over .....	3.4	3.6	3.7	3.9	3.4	3.4	3.4	3.2	3.1	3.5	3.2	4.0	3.4
Women, 16 years and over ....	6.6	6.5	6.3	6.2	6.0	6.1	6.0	6.1	6.1	6.0	5.9	5.9	5.9
16 to 24 years .....	12.4	12.4	12.0	11.8	11.7	11.7	11.0	11.5	11.5	11.2	10.7	10.9	10.8
16 to 19 years .....	17.1	16.6	15.9	15.6	15.5	15.7	14.4	15.4	16.9	16.0	14.8	15.6	15.1
16 to 17 years ...	19.0	19.6	18.6	19.1	18.4	18.0	16.0	16.9	19.9	17.9	16.2	17.9	18.0
18 to 19 years .....	15.7	14.3	14.7	13.1	13.6	14.1	13.4	14.4	14.6	14.7	14.1	14.1	13.1
20 to 24 years .....	9.9	10.1	10.0	9.7	9.6	9.5	9.0	9.4	8.5	8.6	8.4	8.2	8.4
25 years and over .....	5.1	5.0	4.8	4.7	4.5	4.7	4.7	4.7	4.7	4.7	4.7	4.6	4.7
25 to 54 years .....	5.5	5.3	5.1	5.0	4.9	5.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9
55 years and over .....	2.7	3.0	2.9	3.0	2.8	2.6	2.9	3.5	3.1	3.2	3.3	2.6	3.1

**A-39. Selected unemployment indicators, seasonally adjusted**

(Unemployment rates)

Category	1987												1988	
	Feb	Mar	Apr.	May	June	July	Aug	Sept.	Oct.	Nov.	Dec	Jan	Feb	
CHARACTERISTIC														
Total (all civilian workers) . . . . .	6.6	6.5	6.3	6.3	6.1	6.0	6.0	5.9	6.0	5.9	5.8	5.8	5.7	
Men, 20 years and over . . . . .	5.8	5.7	5.6	5.6	5.5	5.4	5.2	5.0	5.1	5.0	4.9	5.1	4.9	
Women, 20 years and over . . . . .	5.8	5.7	5.5	5.4	5.3	5.4	5.3	5.4	5.2	5.2	5.2	5.1	5.2	
Both sexes, 16 to 19 years ...	17.9	17.8	17.3	17.6	16.0	15.8	16.2	16.4	17.2	16.6	16.1	16.0	15.4	
White ..	5.7	5.6	5.5	5.4	5.3	5.2	5.2	5.1	5.2	5.1	4.9	5.0	4.8	
Black and other . . . . .	12.6	12.4	11.8	12.1	11.5	11.4	11.3	10.9	10.8	11.0	10.9	10.9	11.3	
Black . . . . .	14.0	13.9	13.0	13.7	12.8	12.7	12.4	12.3	12.1	12.2	12.2	12.2	12.6	
Hispanic origin . . . . .	9.6	9.1	9.2	8.8	8.6	8.1	8.1	8.2	8.3	9.0	8.1	7.2	8.3	
Married men, spouse present ..	4.1	4.1	4.1	4.0	4.0	3.8	3.7	3.7	3.7	3.5	3.4	3.6	3.4	
Married women, spouse present . . .	4.8	4.5	4.4	4.2	4.0	4.2	4.3	4.2	4.2	4.2	4.3	4.2	4.1	
Women who maintain families ...	9.6	9.7	9.4	9.5	9.5	9.3	9.0	8.8	8.9	8.5	8.4	8.9	8.3	
Full-time workers . . . . .	6.2	6.1	5.9	5.9	5.9	5.7	5.6	5.5	5.6	5.5	5.4	5.4	5.3	
Part-time workers . . . . .	8.8	9.1	8.6	8.7	7.3	8.1	8.2	8.4	8.3	8.2	8.0	8.3	7.9	
Unemployed 15 weeks and over <sup>1</sup> ...	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.4	
Labor force time lost <sup>2</sup> . . . . .	7.5	7.4	7.3	7.2	7.1	6.9	6.9	6.8	6.8	6.8	6.6	6.6	6.6	
INDUSTRY														
Nonagricultural private wage and salary workers . . . . .	6.6	6.5	6.3	6.3	6.1	6.1	6.0	5.9	5.9	5.8	5.7	5.8	5.7	
Goods-producing industries . . . . .	8.0	8.0	7.7	7.7	7.1	7.1	6.9	7.0	7.0	6.5	6.4	7.1	6.9	
Mining . . . . .	13.0	9.5	11.2	13.0	9.5	7.9	8.6	7.4	8.3	7.0	8.0	7.7	7.8	
Construction . . . . .	11.7	12.4	12.0	12.1	11.7	10.8	11.3	11.9	11.2	10.6	10.6	12.2	11.0	
Manufacturing . . . . .	6.8	6.7	6.3	6.3	5.7	6.0	5.6	5.6	5.7	5.3	5.1	5.6	5.6	
Durable goods . . . . .	6.7	6.6	6.2	6.2	5.4	6.0	5.5	5.4	5.2	4.8	4.8	5.5	5.9	
Nondurable goods . . . . .	6.9	7.0	6.4	6.5	6.1	5.9	5.8	5.9	6.5	5.9	5.6	5.8	5.3	
Service-producing industries . . . . .	5.9	5.8	5.7	5.6	5.7	5.6	5.6	5.3	5.4	5.5	5.3	5.3	5.1	
Transportation and public utilities . . . . .	4.1	4.5	4.7	4.4	4.8	4.4	4.4	4.1	4.4	4.5	4.6	3.6	3.6	
Wholesale and retail trade . . . . .	7.2	7.3	7.1	7.0	7.1	6.8	7.0	6.4	6.5	6.8	6.2	6.1	6.4	
Finance and service industries . . . . .	5.2	4.9	4.8	4.9	4.9	5.1	4.7	4.8	4.7	4.8	4.8	4.9	4.5	
Government workers . . . . .	3.6	3.5	3.5	3.4	3.4	3.4	3.7	3.4	3.3	3.4	3.2	3.0	2.8	
Agricultural wage and salary workers . . . . .	11.0	10.8	9.5	9.4	9.3	10.9	10.6	10.6	10.6	11.1	10.9	11.5	10.2	

<sup>1</sup> Unemployment as a percent of the civilian labor force.

<sup>2</sup> Aggregate hours lost by the unemployed and persons on part time

for economic reasons as a percent of potentially available labor force hours.



**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-40. Unemployed persons by duration of unemployment, seasonally adjusted**

(Numbers in thousands)

Weeks of unemployment	1987											1988	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
<b>DURATION</b>													
Less than 5 weeks .....	3,343	3,332	3,195	3,308	3,138	3,186	3,203	3,220	3,223	3,218	3,229	3,089	3,084
5 to 14 weeks .....	2,444	2,411	2,256	2,165	2,151	2,144	2,142	1,949	2,093	2,029	1,968	2,263	2,145
15 weeks and over .....	2,129	2,055	2,060	2,067	2,029	1,920	1,896	1,904	1,801	1,834	1,791	1,733	1,740
15 to 26 weeks .....	1,004	944	984	974	973	945	834	917	844	899	892	839	841
27 weeks and over .....	1,125	1,111	1,076	1,093	1,058	975	1,062	987	957	935	899	894	899
Average (mean) duration, in weeks .....	14.8	14.9	14.8	14.8	14.7	14.2	14.3	14.2	14.1	14.0	14.2	14.4	14.4
Median duration, in weeks .....	6.7	6.7	8.9	6.8	6.6	8.6	6.4	5.8	6.2	6.1	8.0	8.4	8.4
<b>PERCENT DISTRIBUTION</b>													
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks .....	42.2	42.9	42.5	43.9	42.9	43.9	44.2	45.5	45.3	45.4	48.2	43.8	44.3
5 to 14 weeks .....	30.9	30.8	30.0	28.7	29.4	29.8	29.6	27.8	29.4	28.7	28.2	31.9	30.8
15 weeks and over .....	26.9	26.3	27.4	27.4	27.7	28.5	26.2	28.9	25.3	25.9	25.8	24.5	25.0
15 to 26 weeks .....	12.7	12.1	13.1	12.9	13.3	13.0	11.5	13.0	11.9	12.7	12.8	11.8	12.1
27 weeks and over .....	14.2	14.2	14.3	14.5	14.4	13.4	14.7	14.0	13.4	13.2	12.9	12.6	12.9

**A-41. Unemployed persons by reason for unemployment, seasonally adjusted**

(Numbers in thousands)

Reasons for unemployment	1987											1988	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
<b>NUMBER OF UNEMPLOYED</b>													
Job losers .....	3,835	3,791	3,705	3,612	3,554	3,529	3,389	3,313	3,388	3,307	3,200	3,209	3,207
On layoff .....	1,001	1,003	963	924	919	916	874	820	944	878	856	888	884
Other job losers .....	2,834	2,788	2,742	2,688	2,635	2,813	2,515	2,493	2,444	2,429	2,344	2,320	2,323
Job leavers .....	1,033	996	955	931	959	989	992	981	960	928	946	1,082	961
Reentrants .....	2,038	2,078	1,965	1,995	1,980	1,930	1,989	1,908	1,845	1,974	1,945	1,917	1,951
New entrants .....	1,007	952	918	999	854	844	855	882	914	855	909	885	884
<b>PERCENT DISTRIBUTION</b>													
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers .....	48.5	48.5	49.1	47.9	48.4	48.4	47.0	48.8	47.7	46.8	45.7	45.2	45.9
On layoff .....	12.7	12.8	12.8	12.3	12.5	12.8	12.1	11.6	13.3	12.4	12.2	12.5	12.7
Other job losers .....	35.8	35.7	36.4	35.7	35.9	35.8	34.9	35.2	34.4	34.4	33.5	32.7	33.3
Job leavers .....	13.1	12.7	12.7	12.4	13.1	13.8	13.8	13.8	13.5	13.1	13.5	15.3	13.8
Reentrants .....	25.8	28.8	28.1	28.5	28.9	28.5	27.3	28.9	28.0	28.0	27.8	27.0	27.9
New entrants .....	12.7	12.2	12.2	13.3	11.8	11.8	11.9	12.5	12.9	12.1	13.0	12.5	12.4
<b>UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE</b>													
Job losers .....	3.2	3.2	3.1	3.0	3.0	2.9	2.8	2.8	2.8	2.7	2.7	2.8	2.8
Job leavers .....	.9	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.9	.8
Reentrants .....	1.7	1.7	1.6	1.7	1.7	1.8	1.8	1.6	1.5	1.8	1.8	1.8	1.6
New entrants .....	.8	.8	.8	.8	.7	.7	.7	.7	.8	.7	.8	.7	.7

# ESTABLISHMENT DATA HISTORICAL EMPLOYMENT

## B-1. Employees on nonagricultural payrolls by major industry, 1936 to date

(In thousands)

Year and month	Total	Total private	Goods-producing				Service-producing							Government		
			Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government			
													Federal	State	Local	
Annual averages																
1936	29,068	25,400	11,933	946	1,160	9,827	17,135	2,973	( <sup>1</sup> )	( <sup>1</sup> )	1,373	3,312	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	
1937	31,011	27,255	12,936	1,015	1,127	10,794	18,075	3,134	( <sup>1</sup> )	( <sup>1</sup> )	1,417	3,503	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	
1938	29,194	25,311	11,401	891	1,070	9,440	17,793	2,863	( <sup>1</sup> )	( <sup>1</sup> )	1,410	3,458	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	
1939	30,603	26,608	12,297	854	1,165	10,278	18,306	2,936	1,762	4,664	1,447	3,502	905	( <sup>1</sup> )	( <sup>1</sup> )	
1940	32,361	28,159	13,221	925	1,311	10,985	19,140	3,038	1,835	4,914	1,485	3,665	996	( <sup>1</sup> )	( <sup>1</sup> )	
1941	36,539	31,877	15,963	957	1,814	13,192	20,574	3,274	1,960	5,251	1,525	3,905	1,340	( <sup>1</sup> )	( <sup>1</sup> )	
1942	40,106	34,624	18,470	992	2,198	15,280	21,636	3,460	1,906	5,212	1,509	4,066	2,213	( <sup>1</sup> )	( <sup>1</sup> )	
1943	42,434	36,356	20,114	925	1,587	17,602	22,320	3,647	1,822	5,160	1,481	4,130	2,905	( <sup>1</sup> )	( <sup>1</sup> )	
1944	41,864	35,822	19,328	892	1,108	17,328	22,536	3,829	1,845	5,214	1,461	4,145	2,928	( <sup>1</sup> )	( <sup>1</sup> )	
1945	40,374	34,431	17,507	836	1,147	15,524	22,867	3,906	1,949	5,365	1,481	4,222	2,808	( <sup>1</sup> )	( <sup>1</sup> )	
1946	41,652	36,056	17,248	862	1,683	14,703	24,404	4,061	2,291	6,084	1,675	4,697	2,254	( <sup>1</sup> )	( <sup>1</sup> )	
1947	43,857	38,382	18,509	955	2,009	15,545	25,348	4,166	2,471	6,485	1,728	5,025	1,892	( <sup>1</sup> )	( <sup>1</sup> )	
1948	44,866	39,216	18,774	994	2,198	15,582	26,092	4,189	2,605	6,667	1,800	5,181	1,863	( <sup>1</sup> )	( <sup>1</sup> )	
1949	43,754	37,897	17,565	930	2,194	14,441	26,189	4,001	2,602	6,662	1,828	5,240	1,908	( <sup>1</sup> )	( <sup>1</sup> )	
1950	45,197	39,170	18,506	901	2,364	15,241	26,691	4,034	2,635	6,751	1,888	5,357	1,928	( <sup>1</sup> )	( <sup>1</sup> )	
1951	47,819	41,430	19,959	929	2,637	16,393	27,860	4,226	2,727	7,015	1,956	5,547	2,302	( <sup>1</sup> )	( <sup>1</sup> )	
1952	48,793	42,185	20,198	898	2,668	16,632	28,595	4,248	2,812	7,192	2,035	5,699	2,420	( <sup>1</sup> )	( <sup>1</sup> )	
1953	50,202	43,556	21,074	866	2,659	17,549	29,128	4,290	2,854	7,393	2,111	5,835	2,305	( <sup>1</sup> )	( <sup>1</sup> )	
1954	48,990	42,238	19,751	791	2,646	15,314	29,239	4,084	2,867	7,368	2,200	5,969	2,188	( <sup>1</sup> )	( <sup>1</sup> )	
1955	50,641	43,727	20,513	792	2,839	16,882	30,128	4,141	2,926	7,610	2,298	6,240	2,187	1,168	3,558	
1956	52,369	45,091	21,104	822	3,039	17,243	31,266	4,244	3,018	7,840	2,389	6,497	2,209	1,250	3,819	
1957	52,853	45,239	20,964	828	2,962	17,174	31,889	4,241	3,028	7,858	2,438	6,708	2,217	1,328	4,071	
1958	51,324	43,483	19,513	751	2,817	15,945	31,811	3,976	2,980	7,770	2,481	6,765	2,191	1,415	4,232	
1959 <sup>2</sup>	53,268	45,186	20,411	732	3,004	16,675	32,857	4,011	3,082	8,045	2,549	7,087	2,233	1,484	4,366	
1960	54,189	45,836	20,434	712	2,926	16,796	33,755	4,004	3,143	8,248	2,629	7,378	2,270	1,536	4,547	
1961	53,999	45,404	19,857	672	2,859	16,326	34,142	3,903	3,133	8,204	2,688	7,620	2,279	1,607	4,708	
1962	55,549	46,660	20,451	650	2,948	16,853	35,098	3,906	3,198	8,368	2,754	7,982	2,340	1,668	4,881	
1963	56,653	47,429	20,640	635	3,010	16,995	36,013	3,903	3,248	8,530	2,830	8,277	2,358	1,747	5,121	
1964	58,283	48,686	21,005	634	3,097	17,274	37,278	3,951	3,337	8,823	2,911	8,660	2,348	1,856	5,392	
1965	60,765	50,689	21,926	632	3,232	18,062	38,839	4,036	3,466	9,250	2,977	9,036	2,378	1,996	5,700	
1966	63,901	53,116	23,158	627	3,317	19,214	40,743	4,158	3,597	9,648	3,058	9,498	2,564	2,141	6,080	
1967	65,803	54,413	23,308	613	3,248	19,447	42,495	4,268	3,689	9,917	3,185	10,045	2,719	2,302	6,371	
1968	67,897	56,058	23,737	606	3,350	19,781	44,160	4,318	3,779	10,320	3,337	10,567	2,737	2,442	6,660	
1969	70,384	58,189	24,361	619	3,575	20,167	46,023	4,442	3,907	10,798	3,512	11,169	2,758	2,533	6,904	
1970	70,880	58,325	23,578	623	3,588	19,367	47,302	4,515	3,993	11,047	3,645	11,548	2,731	2,664	7,158	
1971	71,214	58,331	22,935	609	3,704	18,623	48,278	4,476	4,001	11,351	3,772	11,797	2,696	2,747	7,437	
1972	73,675	60,341	23,668	628	3,889	19,151	50,007	4,541	4,113	11,836	3,908	12,276	2,684	2,859	7,790	
1973	76,790	63,058	24,893	642	4,097	20,154	51,897	4,656	4,277	12,329	4,046	12,857	2,663	2,923	8,146	
1974	78,265	64,095	24,794	697	4,020	20,077	53,471	4,725	4,433	12,554	4,148	13,441	2,724	3,039	8,407	
1975	76,945	62,259	22,600	752	3,525	18,323	54,345	4,542	4,415	12,645	4,165	13,892	2,748	3,179	8,758	
1976	79,382	64,511	23,352	779	3,576	18,997	56,030	4,582	4,546	13,209	4,271	14,551	2,733	3,273	8,865	
1977	82,471	67,344	24,346	813	3,851	19,682	58,125	4,713	4,708	13,808	4,467	15,303	2,727	3,377	9,023	
1978	86,697	71,026	25,585	851	4,229	20,505	61,113	4,923	4,969	14,573	4,724	16,252	2,753	3,474	9,446	
1979	89,823	73,876	26,461	958	4,463	21,040	63,363	5,136	5,204	14,989	4,975	17,112	2,773	3,541	9,635	
1980	90,406	74,166	25,658	1,027	4,346	20,285	64,748	5,146	5,275	15,035	5,160	17,890	2,866	3,610	9,765	
1981	91,156	75,126	25,497	1,139	4,188	20,170	65,659	5,165	5,358	15,189	5,298	18,619	2,772	3,640	9,619	
1982	89,566	73,729	23,813	1,128	3,905	18,781	65,753	5,082	5,278	15,179	5,341	19,036	2,739	3,640	9,458	
1983	90,200	74,330	23,334	952	3,948	18,434	66,866	4,954	5,268	15,613	5,466	19,694	2,774	3,662	9,434	
1984	94,496	78,472	24,727	966	4,383	19,378	69,769	5,159	5,555	16,545	5,669	20,797	2,807	3,734	9,482	
1985	97,519	81,125	24,859	927	4,673	19,260	72,660	5,238	5,717	17,356	5,955	22,000	2,875	3,832	9,687	
1986	99,610	82,900	24,681	783	4,904	18,994	74,930	5,244	5,735	17,845	6,297	23,099	2,899	3,888	9,923	
1987	102,112	85,049	24,884	741	5,031	19,112	77,228	5,278	5,797	18,264	6,589	24,137	2,943	3,952	10,167	
Monthly data, seasonally adjusted																
1987:																
February	101,150	84,215	24,743	719	5,038	18,986	76,407	5,315	5,757	18,140	6,501	23,759	2,916	3,927	10,092	
March	101,329	84,352	24,749	722	5,032	18,995	76,580	5,333	5,766	18,136	6,526	23,842	2,922	3,930	10,125	
April	101,598	84,560	24,759	729	5,019	19,011	76,839	5,348	5,772	18,197	6,558	23,926	2,933	3,943	10,162	
May	101,708	84,677	24,752	735	4,999	19,018	76,956	5,344	5,775	18,205	6,576	24,025	2,935	3,947	10,149	
June	101,818	84,787	24,761	738	5,008	19,015	77,057	5,350	5,781	18,226	6,586	24,083	2,935	3,932	10,164	
July	102,126	85,106	24,850	744	5,002	19,104	77,276	5,363	5,797	18,274	6,608	24,214	2,936	3,952	10,132	
August	102,275	85,229	24,866	751	5,006	19,129	77,389	5,377	5,807	18,256	6,624	24,279	2,940	3,964	10,142	
September	102,434	85,386	24,917	759	4,989	19,169	77,517	5,416	5,815	18,314	6,629	24,295	2,962	3,957	10,129	
October	102,983	85,795	25,064	764	5,053	19,247	77,919	5,436	5,831	18,408	6,650	24,406	2,965	3,973	10,250	
November	103,285	86,072	25,169	759	5,074	19,336										

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>	Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>
<b>Total</b> .....		102,112	99,511	104,373	102,348	102,924	-	-	-	-	-
<b>Total private</b> .....		85,049	82,584	86,835	85,110	85,332	68,783	66,616	70,305	68,584	68,762
<b>Mining</b> .....		741	716	761	743	740	530	501	550	532	529
Metal mining .....	10	43.3	40.6	44.6	45.1	-	32.6	30.1	33.8	34.4	-
Iron ores .....	101	9.1	7.7	9.2	9.5	-	6.9	5.6	7.0	7.3	-
Copper ores .....	102	12.8	12.2	13.5	13.5	-	10.2	9.6	10.7	10.7	-
Coal mining .....	11,12	162.5	164.1	161.9	160.5	-	132.6	133.6	132.1	130.0	-
Bituminous coal and lignite mining .....	12	160.3	161.6	159.9	158.5	-	130.8	131.5	130.4	128.3	-
Oil and gas extraction .....	13	425.1	412.0	445.9	436.0	432.4	279.3	263.0	300.4	292.1	-
Crude petroleum, natural gas, and natural gas liquids .....	131,2	204.0	206.5	203.5	201.1	-	100.4	101.0	100.3	99.5	-
Oil and gas field services .....	138	221.1	205.5	242.4	234.9	-	178.9	162.0	200.1	192.6	-
Nonmetallic minerals, except fuels .....	14	110.6	99.5	109.0	101.3	-	85.0	74.3	83.3	75.7	-
Crushed and broken stone .....	142	40.1	35.0	40.2	36.0	-	31.9	27.0	31.5	27.3	-
Sand and gravel .....	144	33.2	29.0	31.8	28.7	-	-	-	-	-	-
Chemical and fertilizer minerals .....	147	18.0	17.6	18.2	18.2	-	-	-	-	-	-
<b>Construction</b> .....		5,031	4,620	5,044	4,644	4,624	3,924	3,554	3,925	3,530	3,510
General building contractors .....	15	1,278.4	1,220.2	1,285.2	1,214.1	1,194.7	933.4	883.5	938.3	865.8	-
Residential building construction .....	152	665.3	624.8	671.0	636.5	-	471.9	439.6	476.2	440.8	-
Operative builders .....	153	54.1	52.7	52.0	50.1	-	27.0	26.4	24.5	22.6	-
Nonresidential building construction .....	154	559.1	542.7	562.2	527.5	-	434.5	417.5	437.6	402.4	-
Heavy construction contractors .....	16	779.2	659.4	751.0	641.5	-	652.5	535.8	624.0	516.2	-
Highway and street construction .....	161	292.3	210.9	267.3	211.9	-	244.2	167.3	217.1	162.6	-
Heavy construction, except highway .....	162	486.9	448.5	483.7	429.6	-	408.3	368.5	406.9	353.6	-
Special trade contractors .....	17	2,972.8	2,740.8	3,007.4	2,788.1	-	2,337.6	2,134.2	2,362.7	2,147.5	-
Plumbing, heating, and air conditioning .....	171	657.1	631.1	674.0	656.1	-	485.7	463.4	499.5	480.4	-
Painting, paper hanging, and decorating .....	172	168.9	153.0	165.4	149.3	-	141.1	125.8	136.9	122.2	-
Electrical work .....	173	546.3	525.9	572.4	559.7	-	422.5	404.6	445.4	431.4	-
Masonry, stonework, and plastering .....	174	488.2	449.1	486.2	438.9	-	414.7	378.4	412.9	368.3	-
Carpentering and flooring .....	175	175.1	170.3	169.5	159.1	-	134.5	130.4	129.9	120.9	-
Roofing and sheet metal work .....	176	214.0	199.4	214.9	186.9	-	170.7	158.4	171.1	142.7	-
<b>Manufacturing</b> .....		19,112	18,803	19,388	19,251	19,287	13,021	12,753	13,249	13,124	13,162
<b>Durable goods</b> .....		11,237	11,087	11,414	11,339	11,355	7,457	7,318	7,609	7,540	7,560
Lumber and wood products .....	24	739.0	704.8	741.4	726.5	728.2	618.0	588.1	618.9	605.2	606.9
Logging camps and logging contractors .....	241	81.2	76.6	80.9	77.9	-	67.9	63.9	67.9	65.3	-
Sawmills and planing mills .....	242	201.8	194.1	204.8	200.8	-	178.0	171.0	180.2	176.6	-
Sawmills and planing mills, general .....	2421	163.8	157.4	165.4	161.9	-	144.6	138.8	145.7	142.6	-
Hardwood dimension and flooring .....	2426	35.1	33.8	36.4	36.2	-	30.8	29.6	31.9	31.8	-
Millwork, plywood, and structural members .....	243	262.4	248.9	262.4	259.0	-	216.8	204.8	216.8	213.5	-
Millwork .....	2431	102.0	94.8	101.5	100.2	-	82.7	76.2	82.0	80.5	-
Wood kitchen cabinets .....	2434	70.9	68.2	71.7	70.5	-	57.0	54.6	58.0	57.0	-
Hardwood veneer and plywood .....	2435	24.7	23.9	25.3	25.3	-	21.6	20.8	22.1	22.2	-
Softwood veneer and plywood .....	2436	38.7	37.9	38.7	38.9	-	35.2	34.6	35.0	35.4	-
Wood containers .....	244	40.6	39.5	40.0	40.0	-	34.4	33.4	33.8	33.7	-
Wood buildings and mobile homes .....	245	72.6	67.9	72.3	67.7	-	54.9	50.8	54.4	50.2	-
Mobile homes .....	2451	49.1	46.1	48.5	46.1	-	39.6	36.9	39.0	36.7	-
Miscellaneous wood products .....	249	80.4	77.8	81.0	81.1	-	65.9	64.2	65.8	65.9	-

See footnotes at end of table

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers¹				
		Avg. 1987	Jan 1987	Dec. 1987	Jan 1988º	Feb. 1988º	Avg. 1987	Jan 1987	Dec. 1987	Jan. 1988º	Feb 1988º
<b>Durable goods—Continued</b>											
Furniture and fixtures .....	25	513.6	500.7	534.9	533.7	533.3	411.3	401.1	429.9	428.3	428.0
Household furniture .....	251	306.4	299.1	321.2	321.3	-	258.9	252.2	272.4	272.5	-
Wood household furniture .....	2511	135.9	133.6	141.5	142.2	-	118.9	116.9	123.8	124.3	-
Upholstered household furniture .....	2512	98.9	95.4	103.5	103.6	-	82.8	79.4	87.3	87.1	-
Metal household furniture .....	2514	27.3	27.6	30.2	30.3	-	22.5	22.7	24.9	25.1	-
Mattresses and bedsprings .....	2515	30.8	29.5	31.8	31.5	-	23.4	22.2	24.4	24.4	-
Office furniture .....	252	67.4	66.2	69.5	69.3	-	51.0	50.7	52.6	52.0	-
Public building and related furniture .....	253	28.8	27.7	29.9	29.5	-	22.1	21.3	22.8	22.6	-
Partitions and fixtures .....	254	73.8	71.3	75.6	75.5	-	53.3	51.3	55.1	54.7	-
Miscellaneous furniture and fixtures .....	259	37.1	36.4	38.7	38.1	-	26.0	25.6	27.0	26.5	-
Stone, clay, and glass products .....	32	584.8	564.8	583.3	564.3	563.1	452.6	432.2	452.1	434.3	433.8
Flat glass .....	321	15.0	15.2	14.9	15.0	-	11.7	11.9	11.6	11.7	-
Glass and glassware, pressed or blown .....	322	87.8	88.5	86.3	85.5	-	75.2	75.4	74.1	73.5	-
Glass containers .....	3221	44.1	44.4	42.4	42.7	-	39.6	39.9	38.3	38.4	-
Pressed and blown glass, nec .....	3229	43.7	44.1	43.9	42.8	-	35.5	35.5	35.8	35.1	-
Products of purchased glass .....	323	51.3	50.0	52.2	52.0	-	36.3	34.9	37.8	37.7	-
Cement, hydraulic .....	324	21.7	21.4	21.3	20.9	-	16.7	16.4	16.2	16.0	-
Structural clay products .....	325	38.3	36.9	39.1	38.6	-	30.1	28.8	30.7	30.2	-
Pottery and related products .....	326	36.1	35.8	36.6	36.6	-	28.9	28.5	29.4	29.2	-
Concrete, gypsum, and plaster products .....	327	211.3	195.9	207.9	192.1	-	163.9	149.5	160.4	145.0	-
Concrete block and brick .....	3271	20.3	19.2	20.3	19.3	-	13.5	12.7	13.4	12.6	-
Concrete products, nec .....	3272	69.3	65.6	69.3	66.2	-	52.7	49.1	52.7	49.5	-
Ready-mixed concrete .....	3273	102.3	91.7	99.1	87.7	-	82.6	72.7	79.4	68.3	-
Misc. nonmetallic mineral products .....	329	110.2	109.3	111.9	111.1	-	79.6	77.7	81.6	81.2	-
Abrasive products .....	3291	20.5	20.9	20.6	20.6	-	13.9	13.9	14.2	14.1	-
Asbestos products .....	3292	9.3	9.0	9.4	9.2	-	7.2	6.9	7.2	7.0	-
Mineral wool .....	3296	24.5	25.1	24.4	23.9	-	-	-	-	-	-
Primary metal industries .....	33	750.6	726.6	768.4	768.5	772.3	565.1	540.6	583.5	584.1	586.8
Blast furnaces and basic steel products .....	331	274.6	254.4	284.0	284.7	287.2	207.3	188.3	216.9	218.1	220.0
Blast furnaces and steel mills .....	3312	208.0	189.3	215.7	216.5	-	158.1	140.6	165.7	167.1	-
Steel pipe and tubes .....	3317	23.3	22.4	24.2	24.1	-	17.0	16.2	18.2	18.0	-
Iron and steel foundries .....	332	131.3	128.2	135.6	135.6	-	103.5	100.5	107.8	107.9	-
Gray iron foundries .....	3321	81.8	80.3	84.1	83.7	-	66.4	65.0	68.5	68.1	-
Malleable iron foundries .....	3322	8.7	8.2	9.0	8.9	-	6.3	6.0	6.7	6.6	-
Steel foundries, nec .....	3325	26.8	26.1	28.1	28.8	-	20.0	19.2	21.3	22.0	-
Primary nonferrous metals .....	333	40.5	39.7	41.4	41.8	-	28.6	27.4	30.0	30.4	-
Primary aluminum .....	3334	22.6	22.1	23.1	23.5	-	16.0	15.0	17.0	17.4	-
Nonferrous rolling and drawing .....	335	176.8	177.3	177.2	176.5	-	126.3	125.5	127.0	126.5	-
Copper rolling and drawing .....	3351	22.8	22.3	23.4	23.4	-	17.8	17.4	18.2	18.1	-
Aluminum sheet, plate, and foil .....	3353	27.6	27.5	27.5	27.4	-	20.1	19.9	19.5	19.3	-
Nonferrous wire drawing and insulating .....	3357	74.7	75.5	74.9	74.3	-	52.7	52.7	53.5	53.1	-
Nonferrous foundries .....	336	85.9	85.7	87.3	87.1	-	68.9	68.8	70.0	69.7	-
Aluminum foundries .....	3361	52.6	52.8	53.2	53.1	-	42.9	43.1	43.4	43.3	-
Fabricated metal products .....	34	1,428.2	1,415.0	1,455.1	1,447.4	1,446.9	1,058.8	1,045.0	1,083.1	1,074.4	1,075.8
Metal cans and shipping containers .....	341	56.5	56.2	55.0	54.7	-	48.3	48.0	46.6	46.2	-
Metal cans .....	3411	45.5	45.4	44.1	43.8	-	39.5	39.6	37.8	37.4	-
Cutlery, hand tools, and hardware .....	342	133.5	134.2	135.9	134.8	-	98.4	98.6	101.1	99.6	-
Hand and edge tools, and hand saws and blades .....	3423,5	47.7	46.1	49.4	49.4	-	35.0	33.7	36.4	36.3	-
Hardware, nec .....	3429	74.9	76.6	75.7	74.5	-	56.1	57.3	57.4	56.0	-
Plumbing and heating, except electric .....	343	61.7	61.0	63.6	63.1	-	44.1	43.9	45.8	45.0	-
Plumbing fittings and brass goods .....	3432	24.6	24.4	25.1	25.3	-	17.9	17.8	18.3	18.5	-
Heating equipment, except electric .....	3433	26.3	25.9	27.1	26.4	-	18.0	17.8	18.7	17.8	-
Fabricated structural metal products .....	344	436.6	429.7	442.4	438.4	-	309.3	300.9	316.5	312.6	-
Fabricated structural metal .....	3441	77.2	76.8	78.2	77.8	-	55.0	54.2	56.1	55.7	-
Metal doors, sash, and trim .....	3442	95.2	89.3	96.6	94.5	-	70.6	65.8	71.2	69.5	-
Fabricated plate work (boiler shops) .....	3443	91.4	93.0	92.1	92.5	-	57.7	57.6	59.9	60.3	-
Sheet metal work .....	3444	110.6	109.1	112.4	111.3	-	82.9	81.0	85.0	83.6	-
Architectural metal work .....	3446	29.4	29.7	29.5	29.5	-	21.5	21.6	21.8	21.8	-

See footnotes at end of table



**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg. 1987	Jan 1987	Dec. 1987	Jan. 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>	Avg. 1987	Jan. 1987	Dec. 1987	Jan 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>
<b>Durable goods—Continued</b>											
<b>Fabricated metal products—Continued</b>											
Screw machine products, bolts, etc .....	345	94.6	93.3	96.9	97.0	-	72.4	71.3	74.5	74.6	-
Screw machine products .....	3451	45.3	44.3	47.0	47.2	-	37.1	36.1	38.7	39.0	-
Bolts, nuts, rivets, and washers .....	3452	49.3	49.0	49.9	49.8	-	35.3	35.2	35.8	35.6	-
Metal forgings and stampings .....	346	237.1	240.3	239.2	235.9	-	189.3	192.4	191.2	187.8	-
Iron and steel forgings .....	3462	30.4	31.0	30.3	30.5	-	23.3	23.9	23.3	23.4	-
Automotive stampings .....	3465	99.4	102.3	99.9	96.9	-	84.7	87.2	85.4	82.4	-
Metal stampings, nec .....	3469	96.7	96.4	98.3	97.9	-	73.5	73.4	74.7	74.3	-
Metal services, nec .....	347	115.5	112.3	120.1	120.4	-	92.5	89.9	96.8	96.8	-
Plating and polishing .....	3471	74.7	73.3	77.5	77.3	-	60.3	59.4	62.9	62.6	-
Metal coating and allied services .....	3479	40.8	39.0	42.6	43.1	-	32.2	30.5	33.9	34.2	-
Ordinance and accessories, nec .....	348	80.2	78.6	81.8	82.0	-	50.3	49.4	49.9	50.4	-
Ammunition, except for small arms, nec .....	3483	46.3	46.1	46.6	46.7	-	27.2	28.3	25.3	25.6	-
Misc. fabricated metal products .....	349	212.4	209.4	220.2	221.1	-	154.2	150.6	160.7	161.4	-
Valves and pipe fittings .....	3494	77.0	76.5	80.0	80.9	-	51.7	50.5	54.3	55.2	-
Misc. fabricated wire products .....	3496	51.5	50.8	53.5	53.6	-	39.0	38.2	40.6	40.7	-
Machinery, except electrical .....	35	2,039.1	2,006.5	2,089.5	2,096.1	2,101.3	1,214.3	1,185.0	1,255.0	1,262.0	1,269.2
Engines and turbines .....	351	98.7	98.9	100.2	100.5	-	62.8	61.9	66.4	66.5	-
Turbines and turbine generator sets .....	3511	29.3	31.0	27.7	27.6	-	15.7	16.7	16.0	16.0	-
Internal combustion engines, nec .....	3519	69.4	67.9	72.5	72.9	-	47.0	45.2	50.4	50.5	-
Farm and garden machinery .....	352	101.1	87.6	109.2	112.1	-	67.5	55.1	75.2	78.3	-
Farm machinery and equipment .....	3523	73.5	59.9	78.7	80.3	-	46.4	33.7	51.7	53.5	-
Construction and related machinery .....	353	219.3	211.1	227.8	229.0	-	130.3	123.6	138.1	139.2	-
Construction machinery .....	3531	79.5	75.1	82.0	82.7	-	47.2	43.3	50.0	50.7	-
Mining machinery .....	3532	19.7	18.6	20.5	20.7	-	11.9	10.9	12.5	12.7	-
Oil field machinery .....	3533	41.9	40.3	44.1	44.8	-	24.6	23.1	26.8	27.4	-
Conveyors and conveying equipment .....	3535	29.8	29.5	30.8	30.2	-	15.5	15.2	16.5	16.1	-
Industrial trucks and tractors .....	3537	25.6	25.0	26.4	26.4	-	17.9	17.8	18.4	18.4	-
Metalworking machinery .....	354	298.1	300.3	300.5	302.1	-	213.3	214.7	215.8	216.8	-
Machine tools, metal cutting types .....	3541	45.6	47.2	45.2	45.6	-	28.7	29.9	28.7	28.8	-
Machine tools, metal forming types .....	3542	19.0	19.1	19.1	19.1	-	11.9	11.9	12.3	12.4	-
Special dies, tools, jigs, and fixtures .....	3544	142.2	142.2	143.6	144.5	-	108.8	109.6	109.6	110.4	-
Machine tool accessories .....	3545	53.7	53.2	55.2	55.5	-	38.0	36.8	39.6	39.5	-
Power driven hand tools .....	3546	21.1	21.3	21.0	21.0	-	15.7	15.7	15.7	15.7	-
Special industry machinery .....	355	159.4	157.0	164.2	164.7	-	95.0	92.7	98.6	98.7	-
Food products machinery .....	3551	37.9	37.3	39.0	39.2	-	23.0	22.6	25.6	23.6	-
Textile machinery .....	3552	20.2	19.3	21.2	21.1	-	13.6	12.8	14.4	14.3	-
Printing trades machinery .....	3555	26.8	26.9	27.3	27.6	-	15.8	15.8	16.2	16.4	-
General industrial machinery .....	356	253.8	252.8	258.1	259.1	-	162.3	161.0	166.4	167.7	-
Pumps and pumping equipment .....	3561	44.1	42.9	45.5	45.1	-	25.3	24.7	26.0	26.2	-
Ball and roller bearings .....	3562	43.4	43.5	44.0	44.0	-	33.3	33.0	34.2	34.1	-
Air and gas compressors .....	3563	21.6	21.6	21.5	21.8	-	12.2	12.0	12.5	12.6	-
Blowers and fans .....	3564	30.9	31.0	31.4	31.4	-	19.9	19.9	20.4	20.3	-
Speed changers, drives, and gears .....	3566	20.0	19.7	20.4	20.4	-	13.6	13.4	13.9	14.0	-
Power transmission equipment, nec .....	3568	16.5	16.5	17.1	17.2	-	10.9	10.8	11.4	11.5	-
Office and computing machines .....	357	458.7	457.9	470.1	468.2	-	149.9	149.5	153.7	153.1	-
Electronic computing equipment .....	3573	402.8	401.7	413.4	411.2	-	125.9	125.4	129.1	128.4	-
Refrigeration and service machinery .....	358	175.5	170.8	177.8	177.5	-	125.6	121.5	127.6	127.2	-
Refrigeration and heating equipment .....	3585	126.2	122.6	127.5	127.4	-	92.5	89.4	94.1	93.7	-
Misc. machinery, except electrical .....	359	274.5	270.1	281.6	282.9	-	207.6	205.0	213.2	211.5	-
Carburetors, pistons, rings, and valves .....	3592	35.0	34.6	35.5	35.4	-	28.4	28.4	28.4	28.4	-
Machinery, except electrical, nec .....	3599	239.5	235.5	246.1	247.5	-	179.2	176.6	184.8	186.1	-
<b>Electrical and electronic equipment .....</b>											
Electric distributing equipment .....	36	2,100.8	2,108.9	2,131.8	2,128.3	2,123.6	1,226.1	1,228.6	1,255.3	1,252.5	1,250.7
Transformers .....	361	105.8	106.0	107.5	107.3	-	76.9	77.4	77.8	77.5	-
Switchgear and switchboard apparatus .....	3612	50.4	50.4	51.4	51.1	-	37.1	37.5	37.4	37.4	-
Electrical industrial apparatus .....	3613	55.5	55.6	56.1	56.2	-	39.8	39.9	40.4	40.1	-
Motors and generators .....	362	185.0	187.1	186.4	186.9	-	127.2	128.8	128.8	129.6	-
Industrial controls .....	3621	90.4	91.5	91.2	91.5	-	69.0	69.7	70.2	70.7	-
Household appliances .....	3622	58.6	60.0	58.7	59.1	-	33.7	35.0	34.0	34.4	-
Household refrigerators and freezers .....	363	137.3	137.3	140.6	139.4	-	109.0	108.2	112.7	111.8	-
Household laundry equipment .....	3632	28.7	28.6	29.8	29.5	-	23.4	23.3	24.4	24.2	-
Electric housewares and fans .....	3633	22.8	23.4	22.2	21.9	-	18.0	18.0	17.8	17.5	-
Electric housewares and fans .....	3634	35.6	34.7	37.1	37.1	-	27.3	26.4	28.8	28.8	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>	Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>
<b>Durable goods—Continued</b>											
<b>Electrical and electronic equipment—Continued</b>											
Electric lighting and wiring equipment .....	364	191.4	192.6	194.5	192.4	-	139.2	138.7	143.0	142.0	-
Electric lamps .....	3641	27.1	27.2	27.1	26.9	-	23.1	23.3	23.1	23.0	-
Current-carrying wiring devices .....	3643	73.7	74.6	74.0	73.8	-	48.7	48.2	50.0	50.3	-
Noncurrent-carrying wiring devices .....	3644	16.5	16.6	16.9	16.7	-	11.8	11.9	12.2	12.1	-
Residential lighting fixtures .....	3645	27.2	27.5	28.1	27.4	-	20.6	20.8	21.3	20.7	-
Radio and TV receiving equipment .....	365	79.8	80.4	80.0	78.8	-	54.1	54.1	54.8	53.4	-
Radio and TV receiving sets .....	3651	61.4	62.0	61.9	61.1	-	40.7	41.1	41.5	40.7	-
Communication equipment .....	366	614.6	625.9	611.8	610.5	-	256.8	264.2	256.0	256.1	-
Telephone and telegraph apparatus .....	3661	116.1	122.1	113.9	114.0	-	67.0	71.5	65.6	66.5	-
Radio and TV communication equipment .....	3662	496.5	503.8	497.9	496.5	-	189.8	192.7	190.4	189.6	-
Electronic components and accessories .....	367	635.5	626.4	657.2	659.8	-	357.1	350.7	372.8	373.8	-
Electronic tubes .....	3671-3	38.1	39.2	38.2	37.9	-	24.1	24.3	24.4	24.2	-
Semiconductors and related devices .....	3674	287.4	264.4	275.3	277.1	-	103.8	102.7	108.0	108.7	-
Electronic components, nec .....	3679	258.3	252.8	270.0	270.4	-	175.2	170.9	184.5	164.8	-
Misc. electrical equipment and supplies .....	369	151.4	153.2	153.8	153.2	-	106.0	106.5	109.4	108.3	-
Storage batteries .....	3691	30.5	29.6	32.6	32.2	-	23.7	22.9	25.4	24.9	-
Engine electrical equipment .....	3694	64.7	66.6	65.5	65.8	-	49.4	50.8	50.5	50.1	-
Transportation equipment .....	37	2,015.3	2,010.3	2,034.0	2,004.0	2,011.3	1,263.9	1,265.2	1,275.7	1,249.5	1,254.4
Motor vehicles and equipment .....	371	841.5	843.7	845.0	818.0	822.7	654.5	653.7	661.8	634.4	638.1
Motor vehicles and car bodies .....	3711	387.6	377.1	363.6	339.1	-	276.4	282.4	278.6	254.1	-
Truck and bus bodies .....	3713	43.8	39.6	44.7	43.4	-	34.5	31.2	34.8	33.6	-
Motor vehicle parts and accessories ..	3714	383.4	384.2	389.1	386.5	-	307.3	307.5	313.0	310.0	-
Truck trailers .....	3715	30.1	27.2	30.8	30.3	-	23.3	20.7	24.1	23.7	-
Aircraft and parts .....	372	692.1	691.1	698.7	699.2	-	344.1	345.3	345.9	346.6	-
Aircraft .....	3721	357.1	349.4	369.8	371.1	-	159.8	156.3	165.8	167.4	-
Aircraft engines and engine parts .....	3724	155.7	156.7	155.0	154.5	-	79.1	80.9	78.8	78.8	-
Aircraft equipment, nec .....	3728	179.2	185.0	173.9	173.6	-	105.3	108.1	101.3	100.4	-
Ship and boat building and repairing .....	373	186.0	164.1	190.6	190.7	-	139.0	138.2	143.9	145.1	-
Ship building and repairing .....	3731	126.5	128.6	128.9	128.7	-	90.9	93.4	93.9	94.5	-
Boat building and repairing .....	3732	59.5	55.5	61.7	62.0	-	48.1	44.8	50.0	50.6	-
Railroad equipment .....	374	23.0	24.1	23.3	22.8	-	15.6	16.1	16.6	16.0	-
Guided missiles, space vehicles, and parts ..	376	210.2	206.3	215.4	214.2	-	68.4	70.4	66.7	66.0	-
Guided missiles and space vehicles .....	3761	159.0	155.9	162.2	160.8	-	50.0	50.3	49.1	48.1	-
Miscellaneous transportation equipment .....	379	50.7	49.8	49.7	48.9	-	34.2	33.8	33.1	32.7	-
Travel trailers and campers .....	3792	20.5	19.2	20.0	19.7	-	15.9	15.0	15.2	15.2	-
Instruments and related products .....	38	695.8	695.6	701.4	701.4	701.1	378.2	376.1	384.1	384.1	384.7
Engineering and scientific instruments .....	381	83.1	82.8	84.3	84.4	-	37.5	36.8	38.8	38.8	-
Measuring and controlling devices .....	382	238.2	240.5	237.2	236.0	-	132.8	133.4	132.5	132.5	-
Environmental controls .....	3822	41.0	41.0	41.2	41.3	-	26.0	25.3	26.3	26.5	-
Process control instruments .....	3823	51.8	53.0	52.1	51.7	-	26.9	27.1	27.6	27.5	-
Instruments to measure electricity .....	3825	100.4	101.4	99.1	98.8	-	49.8	50.9	48.3	48.5	-
Optical instruments and lenses .....	383	32.2	32.1	32.4	32.2	-	15.6	15.6	15.7	15.5	-
Medical instruments and supplies .....	384	181.2	180.5	185.1	185.8	-	108.7	108.2	112.2	112.5	-
Surgical and medical instruments .....	3841	86.6	86.5	86.8	87.6	-	49.7	49.4	50.2	50.3	-
Surgical appliances and supplies .....	3842	80.2	79.8	83.6	83.4	-	51.0	50.8	53.7	53.8	-
Ophthalmic goods .....	385	41.9	39.9	43.5	43.9	-	28.6	26.8	30.1	29.6	-
Photographic equipment and supplies .....	386	108.0	108.8	107.5	107.8	-	46.8	47.5	46.3	46.5	-
Watches, clocks, and watchcases .....	387	11.2	11.0	11.4	11.3	-	8.1	7.8	8.5	8.4	-
Miscellaneous manufacturing .....	39	369.4	353.9	374.6	368.8	373.4	269.0	255.7	271.7	265.1	270.1
Jewelry, silverware, and plated ware .....	391	54.0	52.7	55.4	53.7	-	37.3	36.0	38.4	36.9	-
Jewelry, precious metal .....	3911	37.6	36.7	38.9	37.5	-	25.7	24.7	28.7	25.6	-
Musical instruments .....	393	12.8	12.4	13.1	12.8	-	10.8	10.2	11.0	10.7	-
Toys and sporting goods .....	394	99.8	91.0	102.6	102.5	-	74.8	67.3	76.7	76.1	-
Dolls, games, toys, and children's vehicles .....	3942.4	46.9	40.6	47.1	48.8	-	34.2	28.9	33.8	33.1	-
Sporting and athletic goods, nec .....	3949	52.9	50.4	55.7	55.7	-	40.5	38.4	42.9	43.0	-
Pens, pencils, office, and art supplies .....	395	33.2	32.4	33.3	33.5	-	23.0	22.5	23.1	23.1	-
Costume jewelry and notions .....	396	42.6	39.4	42.8	38.7	-	32.9	30.4	32.2	28.8	-
Costume jewelry .....	3961	24.6	23.1	24.2	21.8	-	19.1	17.8	18.5	16.2	-
Miscellaneous manufactures .....	399	127.0	126.0	127.4	127.4	-	90.4	89.3	90.3	89.7	-
Signs and advertising displays .....	3993	55.4	55.9	56.1	56.1	-	36.4	36.8	38.9	36.5	-

See footnotes at end of table.



**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg. 1987	Jan 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>
<b>Nondurable goods</b>		7,875	7 716	7,974	7,912	7,932	5,564	5,435	5,640	5,584	5,602
Food and kindred products	20	1,636.1	1,576.4	1,636.4	1,608.6	1,605.2	1,152.6	1,099.3	1,152.2	1,125.5	1,121.7
Meat products	201	382.8	372.5	394.9	390.0	-	324.9	314.9	336.6	330.3	-
Meat packing plants	2011	137.6	136.2	142.4	142.0	-	115.3	113.5	119.9	119.2	-
Sausages and other prepared meats	2013	76.1	75.1	77.3	75.8	-	56.1	55.3	57.3	55.6	-
Poultry dressing plants	2016	150.1	142.7	155.8	153.0	-	136.1	129.0	141.8	138.0	-
Dairy products	202	165.7	160.9	166.2	164.6	-	100.3	97.2	99.8	98.3	-
Cheese, natural and processed	2022	39.7	38.0	40.9	40.0	-	30.6	29.8	31.3	30.7	-
Fluid milk	2026	85.9	84.7	86.0	85.6	-	43.2	42.2	43.0	42.4	-
Preserved fruits and vegetables	203	241.1	207.2	218.7	210.6	-	197.1	165.3	175.3	167.3	-
Canned specialties	2032	25.5	24.3	25.4	25.3	-	18.0	17.5	17.6	17.8	-
Canned fruits and vegetables	2033	84.1	64.4	68.6	66.3	-	69.2	50.6	54.3	52.1	-
Frozen fruits and vegetables	2037	44.9	36.7	37.2	34.6	-	39.4	31.4	32.1	29.4	-
Grain mill products	204	121.1	119.7	123.7	123.2	-	83.1	82.1	85.8	85.0	-
Flour and other grain mill products	2041	22.6	22.1	23.4	23.5	-	15.2	15.0	16.2	16.2	-
Prepared feeds, nec	2048	42.2	41.9	42.5	42.4	-	26.7	26.4	27.2	26.8	-
Bakery products	205	211.5	208.0	214.0	210.9	-	128.2	125.3	131.3	128.4	-
Bread, cake, and related products	2051	166.2	164.3	166.4	164.6	-	91.7	89.8	93.4	91.8	-
Cookies and crackers	2052	45.3	43.7	47.6	46.3	-	36.5	35.5	37.9	36.6	-
Sugar and confectionery products	206	97.6	100.3	108.0	102.0	-	76.4	78.7	85.9	80.4	-
Cane and beet sugar	2061-3	24.5	26.3	29.0	27.4	-	19.0	20.8	22.9	21.3	-
Confectionery products	2065	53.4	54.4	58.9	54.7	-	44.0	44.6	49.2	45.5	-
Fats and oils	207	32.9	32.6	33.3	33.2	-	23.9	23.9	24.8	24.7	-
Beverages	208	211.0	208.9	207.3	204.3	-	90.0	89.0	86.7	85.5	-
Malt beverages	2082	40.0	40.0	39.3	39.0	-	25.3	25.0	25.0	24.8	-
Bottled and canned soft drinks	2086	125.5	124.8	123.2	122.2	-	41.0	40.5	39.7	39.6	-
Misc. food and kindred products	209	172.4	166.3	170.3	169.8	-	128.7	122.9	126.0	125.6	-
Tobacco manufactures	21	56.5	59.7	58.8	57.9	54.8	42.4	45.9	44.5	43.5	39.1
Cigarettes	211	40.4	41.6	39.7	39.0	-	29.9	31.4	29.1	28.5	-
<b>Textile mill products</b>	22	729.9	715.4	739.5	733.6	734.3	633.9	620.7	641.8	636.8	637.9
Weaving mills, cotton	221	107.7	104.3	110.7	110.2	-	97.3	94.0	100.0	99.4	-
Weaving mills, synthetics	222	87.6	85.4	90.5	90.5	-	78.1	76.1	80.8	80.6	-
Weaving and finishing mills, wool	223	18.1	17.7	19.0	19.2	-	14.8	14.6	15.5	15.7	-
Narrow fabric mills	224	22.9	22.3	23.6	23.9	-	19.9	19.3	20.5	20.7	-
Knitting mills	225	209.7	206.5	208.0	203.3	-	183.9	180.8	182.5	178.9	-
Women's hosiery, except socks	2251	34.7	35.3	33.9	33.5	-	31.0	31.5	30.3	30.0	-
Hosiery, nec	2252	36.6	36.2	36.7	36.5	-	32.8	32.5	32.9	32.7	-
Knit outerwear mills	2253	72.2	70.7	71.1	67.8	-	64.2	62.7	63.3	60.1	-
Knit underwear mills	2254	23.2	23.0	23.1	22.9	-	19.6	19.2	19.5	19.4	-
Circular knit fabric mills	2257	25.3	24.1	25.7	25.5	-	22.0	20.8	22.2	22.3	-
Textile finishing, except wool	226	60.6	60.3	60.6	60.6	-	50.9	50.6	50.9	50.6	-
Finishing plants, cotton	2261	23.7	23.6	24.0	24.0	-	20.1	20.0	20.4	20.0	-
Finishing plants, synthetics	2262	22.5	22.6	22.4	22.2	-	18.3	18.4	18.2	18.1	-
Floor covering mills	227	59.0	56.5	60.5	59.8	-	47.9	46.0	48.7	48.7	-
Yarn and thread mills	228	108.8	107.8	110.2	110.0	-	97.5	96.5	98.6	98.3	-
Yarn mills, except wool	2281	79.7	78.0	81.2	80.9	-	72.2	70.7	73.5	73.2	-
Throwing and winding mills	2282	15.9	16.5	15.6	15.6	-	14.1	14.7	13.8	13.5	-
Miscellaneous textile goods	229	55.5	54.6	56.4	56.1	-	43.6	42.8	44.3	43.9	-
<b>Apparel and other textile products</b>	23	1,113.1	1,096.5	1,119.5	1,106.5	1,116.4	934.8	920.3	941.4	930.1	939.3
Men's and boys' suits and coats	231	57.5	58.9	57.4	57.6	-	49.4	50.7	49.5	49.8	-
Men's and boys' furnishings	232	314.5	305.9	321.1	319.2	-	271.5	264.5	276.9	275.6	-
Men's and boys' shirts and nightwear	2321	86.3	85.0	86.4	85.2	-	73.8	72.8	73.5	72.7	-
Men's and boys' separate trousers	2327	54.5	55.1	55.8	55.5	-	47.7	48.5	47.7	48.5	-
Men's and boys' work clothing	2328	96.0	91.4	98.4	98.7	-	84.0	80.1	86.2	86.7	-
Women's and misses' outerwear	233	357.5	350.0	354.2	347.5	-	297.5	289.9	295.4	289.1	-
Women's and misses' blouses and waists	2331	49.7	49.5	48.6	48.1	-	41.3	41.1	40.5	39.7	-
Women's and misses' dresses	2335	84.3	82.3	82.0	80.4	-	70.2	68.3	67.8	66.0	-
Women's and misses' suits and coats	2337	44.3	39.5	41.6	40.2	-	35.8	31.9	33.4	32.3	-
Women's and misses' outerwear, nec	2339	179.2	178.7	182.0	178.8	-	150.1	148.6	153.7	151.1	-

See footnotes at end of table

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg. 1987	Jan. 1987	Dec 1987	Jan. 1988 <sup>2</sup>	Feb 1988 <sup>2</sup>	Avg 1987	Jan. 1987	Dec. 1987	Jan 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>
<b>Nondurable goods—Continued</b>											
<b>Apparel and other textile products—Continued</b>											
Women's and children's undergarments .....	234	73.2	74.4	72.2	71.2	-	60.3	61.8	59.4	58.6	-
Women's and children's underwear .....	2341	59.6	60.4	58.8	58.1	-	50.8	51.6	50.3	49.7	-
Brassieres and allied garments .....	2342	13.6	14.0	13.4	13.1	-	9.6	10.2	9.1	8.9	-
Children's outerwear .....	236	57.7	60.0	58.1	57.6	-	48.2	50.6	48.6	48.3	-
Children's dresses and blouses .....	2361	24.0	25.5	24.2	24.4	-	21.0	22.3	21.2	21.4	-
Misc. apparel and accessories .....	238	41.5	40.1	41.1	39.7	-	34.7	33.4	34.1	32.9	-
Misc. fabricated textile products .....	239	192.4	188.6	197.0	195.4	-	158.4	154.7	163.0	161.4	-
Curtains and draperies .....	2391	26.9	26.5	27.4	26.8	-	21.8	21.3	22.2	21.7	-
House furnishings, nec .....	2392	52.9	49.7	55.6	54.5	-	44.9	42.0	47.7	46.5	-
Automotive and apparel trimmings .....	2396	39.8	40.6	40.1	39.6	-	33.4	34.2	33.5	32.8	-
Paper and allied products .....	26	678.2	674.0	681.2	678.0	677.1	515.0	511.4	517.4	515.1	515.2
Paper and pulp mills .....	261,2,6	193.3	194.5	193.3	192.3	-	146.8	148.3	146.6	146.0	-
Paper mills, except building paper .....	262	169.4	170.5	169.2	168.6	-	127.9	129.4	127.5	127.2	-
Paperboard mills .....	263	52.9	53.0	52.8	52.8	-	39.9	40.3	40.2	40.3	-
Misc. converted paper products .....	264	233.2	229.4	233.7	232.0	-	173.4	169.8	172.8	172.0	-
Paper coating and glazing .....	2641	58.6	58.1	58.8	58.2	-	37.3	36.4	36.6	36.9	-
Envelopes .....	2642	26.8	27.0	27.1	27.2	-	20.9	21.3	21.2	21.2	-
Bags, except textile bags .....	2643	52.8	52.3	54.0	53.5	-	41.8	41.5	42.8	42.3	-
Paperboard containers and boxes .....	265	198.8	197.1	201.4	200.9	-	154.9	153.0	157.8	156.8	-
Folding paperboard boxes .....	2651	42.9	42.4	43.9	43.2	-	34.0	33.5	34.9	34.5	-
Corrugated and solid fiber boxes .....	2653	104.7	104.9	105.7	106.0	-	79.5	79.7	80.5	80.4	-
Sanitary food containers .....	2654	23.6	22.5	23.7	24.2	-	20.3	19.2	20.4	20.5	-
Printing and publishing .....	27	1,501.4	1,477.0	1,532.6	1,529.5	1,537.2	841.2	830.6	862.7	860.3	867.2
Newspapers .....	271	462.2	457.6	470.4	466.9	-	170.8	170.3	175.3	171.8	-
Periodicals .....	272	121.9	117.6	125.6	126.8	-	44.6	43.4	45.9	46.5	-
Books .....	273	113.2	112.6	113.3	113.9	-	60.4	61.7	60.0	61.0	-
Book publishing .....	2731	83.9	83.7	83.7	83.8	-	37.5	38.7	36.7	37.4	-
Book printing .....	2732	29.2	28.9	29.6	30.1	-	22.9	23.0	23.3	23.6	-
Miscellaneous publishing .....	274	77.6	75.1	80.3	80.8	-	41.2	40.5	41.7	42.3	-
Commercial printing .....	275	529.1	517.3	543.0	541.9	-	383.0	374.3	395.3	394.5	-
Commercial printing, letterpress .....	2751	168.5	163.7	173.2	171.9	-	121.1	118.9	123.6	122.7	-
Commercial printing, lithographic .....	2752	332.5	325.9	340.9	341.0	-	239.5	233.5	248.5	248.7	-
Manifold business forms .....	276	48.8	49.4	49.3	49.3	-	34.0	34.8	34.3	34.4	-
Blankbooks and bookbinding .....	278	73.8	72.5	74.7	75.2	-	59.1	58.1	60.0	60.2	-
Printing trade services .....	279	53.3	52.6	54.4	54.4	-	39.7	39.6	40.5	40.6	-
Chemicals and allied products .....	28	1,026.6	1,011.5	1,044.0	1,041.6	1,046.4	575.2	563.6	586.8	584.7	589.8
Industrial inorganic chemicals .....	281	133.7	133.0	136.1	135.6	-	67.8	68.0	67.1	67.1	-
Industrial inorganic chemicals, nec .....	2819	88.7	88.6	91.1	90.6	-	48.7	49.3	48.0	47.9	-
Plastics materials and synthetics .....	282	165.7	165.7	168.1	168.2	-	109.4	111.0	110.3	110.4	-
Plastics materials and resins .....	2821	76.3	75.1	77.8	77.8	-	45.2	44.9	45.7	45.6	-
Organic fibers, noncellulosic .....	2824	60.1	61.3	60.4	60.6	-	42.5	44.3	42.2	42.4	-
Drugs .....	283	211.7	207.8	216.8	218.0	-	97.3	96.1	100.2	100.9	-
Pharmaceutical preparations .....	2834	168.9	166.0	173.2	174.7	-	76.4	75.8	79.0	79.9	-
Soap, cleaners, and toilet goods .....	284	152.5	146.9	157.1	155.4	-	97.0	92.3	100.5	98.2	-
Soap and other detergents .....	2841	42.0	41.6	43.2	42.4	-	26.5	26.2	27.3	26.4	-
Polishing, sanitation, and finishing preparations .....	2842,3	40.6	39.8	41.4	41.7	-	22.2	21.2	23.1	23.2	-
Toilet preparations .....	2844	69.9	65.5	72.5	71.3	-	48.3	44.9	50.1	48.6	-
Paints and allied products .....	285	63.0	61.8	62.2	61.8	-	30.9	30.1	30.2	29.9	-
Industrial organic chemicals .....	286	152.4	151.5	153.9	154.2	-	85.7	81.7	88.7	89.1	-
Cyclic crudes and intermediates .....	2865	29.5	28.9	30.0	30.1	-	19.4	19.3	19.6	19.5	-
Gum, wood, and industrial organic chemicals, nec .....	2861,9	122.9	122.6	123.9	124.1	-	66.3	62.4	69.1	69.6	-
Agricultural chemicals .....	287	54.1	53.4	54.8	53.8	-	34.2	33.0	35.4	34.9	-
Miscellaneous chemical products .....	289	93.5	91.4	95.0	94.6	-	52.9	51.4	54.4	54.2	-
Petroleum and coal products .....	29	164.8	160.6	164.4	163.4	164.2	107.5	102.6	107.2	106.6	107.5
Petroleum refining .....	291	125.6	124.9	126.3	126.6	-	79.8	77.9	80.9	81.7	-
Paving and roofing materials .....	295	27.8	24.5	26.4	25.2	-	21.1	18.3	19.8	18.4	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>
<b>Nondurable goods—Continued</b>											
Rubber and misc. plastics products .....	30	818.2	799.0	843.8	842.1	845.1	635.5	620.0	657.6	655.5	658.2
Tires and inner tubes .....	301	86.2	87.1	86.0	86.2	-	61.8	63.5	61.0	61.2	-
Rubber and plastics footwear .....	302	10.5	10.4	11.2	11.1	-	8.7	8.7	9.3	9.1	-
Reclaimed rubber, and rubber and plastics hose and belting .....	303,4	21.8	21.8	22.4	22.4	-	15.8	15.6	16.5	16.6	-
Fabricated rubber products, nec .....	306	104.3	102.9	106.9	107.4	-	80.2	78.9	82.7	83.0	-
Miscellaneous plastics products .....	307	595.3	576.8	617.3	615.0	-	469.0	453.3	488.1	485.6	-
Leather and leather products .....	31	150.5	145.5	153.9	151.2	151.6	126.0	121.0	128.2	126.1	126.0
Leather tanning and finishing .....	311	13.6	13.6	13.4	13.1	-	11.3	11.3	11.1	10.9	-
Footwear, except rubber .....	314	88.4	84.7	91.6	90.9	-	76.1	72.4	78.6	78.1	-
Men's footwear, except athletic .....	3143	39.2	37.2	41.5	41.2	-	31.8	29.7	33.9	33.9	-
Women's footwear, except athletic .....	3144	31.8	31.4	32.1	32.2	-	28.1	27.6	28.3	28.5	-
Luggage .....	316	11.3	10.5	12.4	11.8	-	8.1	7.5	9.1	8.5	-
Handbags and personal leather goods .....	317	18.5	18.5	18.2	17.5	-	15.1	15.0	14.4	13.9	-
<b>Transportation and public utilities</b> .....		5,378	5,245	5,510	5,426	5,431	4,458	4,337	4,574	4,494	4,502
Transportation .....		3,150	3,040	3,272	3,196	3,202	-	-	-	-	-
Railroad transportation .....	40	306.7	303.8	295.8	288.1	-	-	-	-	-	-
Class I railroads <sup>2</sup> .....	4011	270.7	268.5	259.5	252.0	-	-	-	-	-	-
Local and interurban passenger transit .....	41	280.9	287.7	294.3	293.1	-	259.5	267.0	272.2	270.0	-
Local and suburban transportation .....	411	100.5	98.8	101.3	101.7	-	91.8	90.8	92.7	92.7	-
Taxicabs .....	412	34.5	35.9	34.6	34.2	-	-	-	-	-	-
Intercity highway transportation .....	413	31.7	30.6	31.9	31.4	-	28.7	27.6	28.8	28.7	-
School buses .....	415	89.7	100.6	100.7	100.7	-	-	-	-	-	-
Trucking and warehousing .....	42	1,485.3	1,383.8	1,568.4	1,504.3	-	1,276.0	1,200.8	1,370.6	1,309.8	-
Trucking and trucking terminals .....	421,3	1,357.4	1,280.9	1,451.7	1,392.6	-	1,185.1	1,114.4	1,273.4	1,215.8	-
Public warehousing .....	422	107.9	102.9	114.7	111.7	-	90.8	86.4	97.2	94.0	-
Water transportation .....	44	174.1	164.5	174.3	173.1	-	-	-	-	-	-
Local water transportation .....	445	26.6	24.2	26.0	25.0	-	-	-	-	-	-
Water transportation services .....	446	95.3	91.8	93.2	93.6	-	-	-	-	-	-
Transportation by air .....	45	604.3	592.8	615.2	610.0	-	-	-	-	-	-
Air transportation .....	451,2	534.4	524.7	542.3	537.1	-	-	-	-	-	-
Air transportation services .....	458	69.9	68.1	72.9	72.9	-	-	-	-	-	-
Pipe lines, except natural gas .....	46	17.9	17.6	18.0	18.0	-	13.0	12.8	13.0	13.0	-
Transportation services .....	47	300.1	289.9	307.9	309.1	-	-	-	-	-	-
Freight forwarding .....	471	71.3	68.0	74.6	74.7	-	-	-	-	-	-
<b>Communication and public utilities</b> .....		2,228	2,205	2,238	2,230	2,229	-	-	-	-	-
Communication .....	48	1,297.3	1,282.0	1,308.8	1,302.7	-	986.3	975.1	993.6	991.5	-
Telephone communication .....	481	893.7	886.0	895.3	887.9	-	681.8	656.3	662.8	658.6	-
Radio and television broadcasting .....	483	238.1	236.2	240.0	239.8	-	193.8	193.8	196.2	196.9	-
Radio broadcasting .....	4832	113.0	113.5	112.6	112.6	-	-	-	-	-	-
Television broadcasting .....	4833	123.1	122.7	127.4	127.2	-	-	-	-	-	-
Electric, gas, and sanitary services .....	49	930.7	922.8	929.2	927.0	-	737.0	731.3	732.1	729.9	-
Electric services .....	491	453.9	451.8	452.7	450.9	-	346.5	346.6	343.8	342.4	-
Gas production and distribution .....	492	168.7	165.8	166.1	165.8	-	132.2	131.1	131.1	130.6	-
Combination utility services .....	493	203.4	204.3	200.6	200.3	-	167.6	168.1	164.2	163.8	-
Sanitary services .....	495	78.5	73.7	81.3	81.8	-	68.1	63.8	70.5	70.8	-
<b>Wholesale trade</b> .....		5,797	5,700	5,878	5,846	5,853	4,637	4,559	4,699	4,685	4,672
<b>Durable goods</b> .....		3,419	3,368	3,473	3,465	3,473	2,704	2,668	2,744	2,734	-
Motor vehicles and automotive equipment .....	501	434.6	432.3	435.4	434.9	-	348.3	346.3	349.3	348.8	-
Automobiles and other motor vehicles .....	5012	121.1	111.4	113.6	113.6	-	-	-	-	-	-
Automotive parts and supplies .....	5013	291.1	290.3	290.7	290.3	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>o</sup>	Feb. 1988 <sup>o</sup>	Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>o</sup>	Feb. 1988 <sup>o</sup>
<b>Wholesale trade—Continued</b>											
<b>Durable goods—Continued</b>											
Furniture and home furnishings .....	502	138.3	133.9	142.3	141.4	-	111.5	107.6	115.4	113.7	-
Furniture .....	5021	60.2	59.3	61.5	62.0	-	-	-	-	-	-
Home furnishings .....	5023	78.1	74.6	80.8	79.4	-	-	-	-	-	-
Lumber and construction materials .....	503	228.7	223.8	228.2	222.7	-	188.2	183.6	187.7	181.9	-
Lumber, plywood, and millwork .....	5031	103.8	101.0	103.5	102.6	-	-	-	-	-	-
Construction materials, nec .....	5039	124.9	122.8	124.7	120.1	-	-	-	-	-	-
Sporting goods, toys, and hobby goods ..	504	80.5	78.0	83.5	81.9	-	66.5	64.2	69.1	66.9	-
Metals and minerals, except petroleum .....	505	133.7	131.0	137.4	138.3	-	104.5	102.1	108.0	109.0	-
Electrical goods .....	506	492.3	478.8	499.8	500.6	-	374.7	372.0	380.6	380.3	-
Electrical apparatus and equipment .....	5063	271.7	269.5	277.3	277.4	-	-	-	-	-	-
Electrical appliances, TV and radios .....	5064	73.0	72.6	73.0	72.4	-	-	-	-	-	-
Electronic parts and equipment .....	5065	147.6	146.7	149.5	150.8	-	-	-	-	-	-
Hardware, plumbing, and heating equipment .....	507	263.4	260.0	265.8	264.1	-	212.3	209.2	214.8	212.6	-
Hardware .....	5072	91.4	89.3	92.3	91.9	-	-	-	-	-	-
Plumbing and hydronic heating supplies .....	5074	109.0	108.1	110.5	109.9	-	-	-	-	-	-
Machinery, equipment, and supplies .....	508	1,451.6	1,429.9	1,476.2	1,480.9	-	1,141.8	1,132.2	1,154.9	1,160.1	-
Commercial machines and equipment .....	5081	535.5	528.7	547.8	550.0	-	-	-	-	-	-
Construction and mining machinery .....	5082	81.7	80.2	82.7	83.2	-	-	-	-	-	-
Farm machinery and equipment .....	5083	119.8	114.9	119.2	119.1	-	-	-	-	-	-
Industrial machinery and equipment .....	5084	296.4	294.0	300.2	300.8	-	-	-	-	-	-
Industrial supplies .....	5085	130.0	128.5	132.5	132.9	-	-	-	-	-	-
Professional equipment and supplies .....	5086	175.3	174.4	178.8	180.4	-	-	-	-	-	-
Miscellaneous durable goods .....	509	195.5	190.5	204.1	200.3	-	156.2	151.2	163.7	160.5	-
Scrap and waste materials .....	5093	89.6	87.2	93.9	92.7	-	-	-	-	-	-
<b>Nondurable goods .....</b>	<b>51</b>	<b>2,379</b>	<b>2,332</b>	<b>2,405</b>	<b>2,381</b>	<b>2,380</b>	<b>1,933</b>	<b>1,891</b>	<b>1,955</b>	<b>1,931</b>	<b>-</b>
Paper and paper products .....	511	192.7	189.7	194.1	194.6	-	156.4	154.6	156.1	155.8	-
Drugs, proprietaries, and sundries .....	512	175.6	169.8	183.1	183.3	-	145.6	140.8	152.2	152.5	-
Apparel, piece goods, and notions .....	513	192.8	190.3	193.6	190.9	-	145.0	143.3	146.7	144.0	-
Groceries and related products .....	514	764.9	754.2	772.6	761.9	-	646.7	637.9	652.5	642.6	-
Groceries, general line .....	5141	249.0	247.6	252.5	251.0	-	-	-	-	-	-
Meats and meat products .....	5147	64.1	63.9	64.7	64.0	-	-	-	-	-	-
Fresh fruits and vegetables .....	5148	88.3	88.3	86.2	82.3	-	-	-	-	-	-
Chemicals and allied products .....	516	133.3	130.3	135.0	134.5	-	97.9	94.2	100.5	99.6	-
Petroleum and petroleum products .....	517	195.4	194.4	197.6	196.9	-	152.5	150.9	154.5	153.9	-
Petroleum bulk stations and terminals .....	5171	79.4	79.1	80.7	80.7	-	-	-	-	-	-
Petroleum products, nec .....	5172	116.0	115.3	116.9	116.2	-	-	-	-	-	-
Beer, wine, and distilled beverages .....	518	153.5	149.9	155.1	153.2	-	126.3	123.0	127.1	125.4	-
Beer and ale .....	5181	96.7	94.0	96.3	95.2	-	-	-	-	-	-
Wines and distilled beverages .....	5182	56.9	55.9	58.8	58.0	-	-	-	-	-	-
Miscellaneous nondurable goods .....	519	441.5	425.1	444.5	439.0	-	357.7	342.5	360.0	354.2	-
Farm supplies .....	5191	146.1	138.0	142.3	142.7	-	-	-	-	-	-
<b>Retail trade .....</b>		<b>18,264</b>	<b>17,810</b>	<b>19,086</b>	<b>18,349</b>	<b>18,233</b>	<b>16,233</b>	<b>15,839</b>	<b>16,990</b>	<b>16,261</b>	<b>16,127</b>
Building materials and garden supplies .....	52	722.1	679.1	726.0	699.2	-	599.7	561.7	601.7	576.1	-
Lumber and other building materials .....	521	391.6	372.4	392.3	382.4	-	331.6	313.8	330.7	320.5	-
Hardware stores .....	525	160.6	154.3	165.9	161.5	-	133.4	128.1	137.4	133.6	-
General merchandise stores .....	53	2,406.3	2,409.4	2,756.8	2,555.9	2,455.7	2,254.3	2,266.2	2,586.3	2,389.2	-
Department stores .....	531	2,012.2	2,022.3	2,308.7	2,148.3	-	1,903.0	1,921.5	2,183.9	2,026.4	-
Variety stores .....	533	246.4	243.0	271.4	250.5	-	223.4	219.9	247.7	227.0	-
Misc. general merchandise stores .....	539	147.7	144.1	176.7	157.1	-	128.0	124.8	154.7	135.8	-
Food stores .....	54	2,959.1	2,917.8	3,059.3	3,009.2	3,009.3	2,724.4	2,691.9	2,815.6	2,763.3	-
Grocery stores .....	541	2,598.5	2,565.4	2,667.5	2,654.5	-	2,404.0	2,376.7	2,464.9	2,448.9	-
Meat markets and freezer provisioners .....	542	59.9	50.6	62.0	59.1	-	-	-	-	-	-
Dairy products stores .....	545	35.9	34.0	41.9	34.4	-	-	-	-	-	-
Retail bakeries .....	546	163.8	164.3	170.1	165.1	-	148.8	149.9	154.3	149.4	-
Automotive dealers and service stations .....	55	1,987.3	1,958.1	2,002.6	2,001.1	2,008.2	1,666.0	1,641.6	1,674.1	1,672.2	-
New and used car dealers .....	551.2	969.1	958.8	982.6	988.9	-	805.1	796.9	813.9	819.1	-
Auto and home supply stores .....	553	314.5	307.8	318.0	314.6	-	254.2	248.5	257.4	254.6	-
Gasoline service stations .....	554	608.4	604.8	611.5	609.7	-	530.3	527.1	531.3	529.2	-

See footnotes at end of table.



**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg 1987	Jan. 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg 1987	Jan 1987	Dec 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>
<b>Retail trade—Continued</b>											
Apparel and accessory stores .....	56	1,100.7	1,110.6	1,193.7	1,104.4	-	931.1	942.6	1,021.3	933.7	-
Men's and boys' clothing and furnishings .....	561	106.8	110.9	116.6	106.5	-	87.7	92.6	97.5	87.2	-
Women's ready-to-wear stores .....	562	391.6	394.8	418.2	388.2	-	332.2	338.2	356.9	328.4	-
Family clothing stores .....	565	247.5	248.8	278.6	247.4	-	214.8	216.0	245.7	214.9	-
Shoe stores .....	566	211.8	207.7	224.9	215.4	-	173.3	166.6	188.0	179.2	-
Furniture and home furnishings stores .....	57	53.2	792.6	851.3	833.4	-	665.3	659.2	704.8	687.8	-
Furniture and home furnishings stores ..	571	452.9	443.0	474.4	466.9	-	372.5	364.7	391.1	383.2	-
Furniture stores .....	5712	284.0	278.2	295.0	292.9	-	-	-	-	-	-
Household appliance stores .....	572	85.4	86.7	87.3	86.8	-	73.1	74.2	75.7	74.7	-
Radio, television, and music stores .....	573	264.9	262.9	289.6	279.7	-	219.7	220.3	238.0	229.9	-
Radio and television stores .....	5732	197.3	195.0	215.8	208.7	-	-	-	-	-	-
Music stores .....	5733	67.6	67.9	73.8	71.0	-	-	-	-	-	-
Eating and drinking places .....	58	5,993.6	5,665.4	6,009.1	5,797.5	5,823.5	5,460.1	5,151.6	5,467.4	5,259.7	-
Miscellaneous retail .....	59	2,291.9	2,276.6	2,487.2	2,348.3	-	1,931.3	1,924.3	2,118.8	1,979.3	-
Drug stores and proprietary stores ..	591	590.5	579.5	625.8	614.3	-	502.0	492.9	535.4	522.7	-
Liquor stores .....	592	125.1	117.0	129.0	122.6	-	-	-	-	-	-
Miscellaneous shopping goods stores .....	594	759.8	747.7	879.9	793.1	-	638.4	645.0	755.1	668.1	-
Sporting goods and bicycle shops .....	5941	131.7	132.9	147.7	139.7	-	-	-	-	-	-
Book stores .....	5942	77.1	77.8	32.0	78.8	-	-	-	-	-	-
Stationery stores .....	5943	75.9	76.7	78.2	77.1	-	-	-	-	-	-
Jewelry stores .....	5944	146.1	151.1	164.9	152.2	-	-	-	-	-	-
Gift, novelty, and souvenir shops .....	5947	143.1	139.0	162.9	141.9	-	-	-	-	-	-
Sewing, needlework, and piece goods .....	5949	64.0	63.8	67.8	64.6	-	-	-	-	-	-
Nonstore retailers .....	596	258.5	255.0	272.5	255.9	-	232.9	230.2	245.7	228.8	-
Mail order houses .....	5961	122.8	122.7	134.4	120.5	-	-	-	-	-	-
Merchandising machine operators .....	5962	81.8	79.5	83.8	84.0	-	-	-	-	-	-
Fuel and ice dealers .....	598	113.8	116.3	117.8	119.4	-	94.3	97.7	98.0	100.0	-
Retail stores, nec .....	599	360.3	353.5	375.0	355.9	-	293.8	287.2	308.6	289.9	-
<b>Finance, insurance, and real estate<sup>1</sup></b> .....		<b>6,589</b>	<b>6,422</b>	<b>6,654</b>	<b>6,623</b>	<b>6,614</b>	<b>4,844</b>	<b>4,731</b>	<b>4,863</b>	<b>4,825</b>	<b>4,809</b>
<b>Finance</b> .....		<b>3,278</b>	<b>3,222</b>	<b>3,298</b>	<b>3,294</b>	<b>3,280</b>	-	-	-	-	-
Banking .....	60	1,735.9	1,733.6	1,732.5	1,734.0	-	1,250.8	1,252.9	1,242.5	1,241.7	-
Commercial and stock savings banks .....	602	1,561.0	1,559.2	1,557.8	1,558.9	-	1,120.5	1,122.4	1,113.4	1,112.6	-
State banks, Federal Reserve .....	6022	344.9	343.0	346.5	348.0	-	-	-	-	-	-
State banks, not Federal Reserve .....	6023,4	375.9	373.5	376.5	376.3	-	-	-	-	-	-
Mutual savings banks .....	603	86.8	86.1	87.0	86.7	-	-	-	-	-	-
Credit agencies other than banks .....	61	893.4	872.2	896.9	895.9	-	668.4	655.0	666.7	662.8	-
Savings and loan associations .....	612	401.4	391.7	405.9	404.2	-	306.1	298.9	308.5	305.9	-
Federal savings and loan associations .....	6122	222.1	215.6	224.1	223.9	-	-	-	-	-	-
State associations, insured .....	6123	171.1	166.9	173.9	172.6	-	-	-	-	-	-
Personal credit institutions .....	614	234.7	231.2	238.6	239.3	-	180.8	178.3	183.2	183.7	-
Business credit institutions .....	615	54.5	52.0	57.2	59.1	-	-	-	-	-	-
Mortgage bankers and brokers ..	616	178.1	172.0	171.6	170.7	-	-	-	-	-	-
Security, commodity brokers, and services ..	62	438.7	416.2	453.5	449.7	-	-	-	-	-	-
Security brokers and dealers .....	621	349.7	331.4	360.8	357.0	-	-	-	-	-	-
Holding and other investment offices ..	67	209.7	200.1	215.0	214.3	-	-	-	-	-	-
<b>Insurance</b> .....		<b>2,044</b>	<b>2,007</b>	<b>2,080</b>	<b>2,080</b>	<b>2,090</b>	-	-	-	-	-
Insurance carriers .....	63	1,412.3	1,395.6	1,429.4	1,430.2	-	951.8	950.7	954.7	955.9	-
Life insurance .....	631	585.5	580.6	593.7	594.1	-	360.2	364.6	357.6	356.7	-
Medical service and health insurance .....	632	193.7	192.6	198.4	199.4	-	156.1	155.9	160.5	161.0	-
Fire, marine, and casualty insurance .....	633	531.7	518.8	540.9	541.8	-	357.8	350.9	363.8	367.0	-
Title insurance .....	636	59.0	61.1	53.8	53.3	-	-	-	-	-	-
Insurance agents, brokers, and service ..	64	631.2	611.3	650.5	650.0	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>
<b>Finance, insurance, and real estate—Continued</b>											
Real estate, and combined real estate, insurance, etc ..		1,267	1,193	1,276	1,249	1,244	-	-	-	-	-
Real estate .....	65	1,255.0	1,181.0	1,263.7	1,236.3	-	-	-	-	-	-
Real estate operators and lessors .....	651	523.9	505.1	525.2	506.5	-	-	-	-	-	-
Real estate agents and managers .....	653	527.2	496.4	538.6	537.2	-	-	-	-	-	-
Subdividers and developers .....	655	168.0	146.4	164.3	157.6	-	-	-	-	-	-
Combined real estate, insurance, etc .....	66	12.3	12.3	12.2	12.2	-	-	-	-	-	-
<b>Services .....</b>		24,137	23,268	24,514	24,228	24,550	21,137	20,342	21,455	21,153	21,451
Hotels and other lodging places .....	70	1,447.4	1,341.5	1,417.5	1,401.5	-	-	-	-	-	-
Hotels, motels, and tourist courts .....	701	1,407.1	1,309.1	1,387.3	1,371.5	-	1,256.1	1,160.5	1,231.7	1,218.3	-
Personal services .....	72	1,152.2	1,138.1	1,185.2	1,208.3	-	-	-	-	-	-
Laundry, cleaning, and garment services .....	721	406.3	393.3	418.9	413.8	-	361.4	349.9	371.5	366.7	-
Photographic studios, portrait .....	722	61.6	57.9	67.3	62.0	-	-	-	-	-	-
Beauty shops .....	723	351.1	348.8	353.2	349.7	-	316.5	315.4	317.5	314.2	-
Funeral service and crematories .....	726	78.6	78.5	78.4	79.0	-	-	-	-	-	-
Business services .....	73	5,097.0	4,879.8	5,243.2	5,142.7	5,173.9	4,371.9	4,169.5	4,504.9	4,404.1	-
Advertising .....	731	200.9	200.8	203.3	200.9	-	149.7	148.9	152.9	150.4	-
Advertising agencies .....	7311	148.3	148.8	149.9	148.4	-	-	-	-	-	-
Credit reporting and collection .....	732	104.2	101.5	102.9	102.4	-	-	-	-	-	-
Mailing, reproduction, and stenographic .....	733	207.8	199.3	221.6	220.0	-	-	-	-	-	-
Services to buildings .....	734	689.2	679.5	679.2	671.9	-	624.3	612.8	615.7	609.8	-
Personnel supply services .....	736	1,188.0	1,054.4	1,271.5	1,201.9	-	-	-	-	-	-
Employment agencies .....	7361	184.3	166.9	196.3	191.3	-	-	-	-	-	-
Temporary help supply services .....	7362	944.3	834.9	1,009.2	944.8	-	-	-	-	-	-
Computer and data processing services .....	737	638.6	614.6	669.0	679.0	-	501.7	484.7	524.1	531.3	-
Computer programming and software .....	7372	237.4	224.2	254.5	253.4	-	-	-	-	-	-
Data processing services .....	7374	300.2	291.0	310.9	317.5	-	-	-	-	-	-
Miscellaneous business services .....	739	2,059.2	2,020.8	2,086.5	2,057.5	-	-	-	-	-	-
Research, development laboratories, nec. ....	7391	197.7	195.6	200.1	200.0	-	-	-	-	-	-
Management and public relations .....	7392	570.5	553.9	577.1	568.4	-	-	-	-	-	-
Detective and protective services .....	7393	451.2	448.5	452.8	445.1	-	-	-	-	-	-
Equipment rental and leasing .....	7394	216.9	208.7	221.3	219.4	-	-	-	-	-	-
Photofinishing laboratories .....	7395	80.5	78.9	83.1	79.2	-	-	-	-	-	-
Auto repair, services, and garages .....	75	795.8	773.8	810.2	801.4	-	663.2	647.1	673.2	662.2	-
Automotive rentals, without drivers .....	751	174.3	166.9	178.3	167.9	-	-	-	-	-	-
Automotive repair shops .....	753	472.6	458.4	481.3	482.3	-	390.5	380.6	397.3	395.2	-
Miscellaneous repair services .....	76	322.2	316.1	329.7	328.2	-	268.2	262.4	274.5	271.9	-
Electrical repair shops .....	762	105.0	106.3	103.5	102.9	-	-	-	-	-	-
Motion pictures .....	78	232.3	228.1	234.7	235.7	-	195.8	190.5	199.6	198.6	-
Motion picture production and services .....	781	116.8	115.4	122.8	124.3	-	94.7	91.8	101.6	101.2	-
Motion picture theaters .....	783	102.4	100.1	98.1	97.3	-	-	-	-	-	-
Amusement and recreation services .....	79	986.2	836.6	879.1	824.5	-	859.0	718.9	758.7	704.7	-
Health services .....	80	6,879.4	6,705.7	7,048.5	7,073.1	7,125.6	6,111.7	5,958.9	6,257.7	6,273.1	-
Offices of physicians .....	801	1,074.5	1,032.1	1,119.0	1,129.1	-	883.5	849.8	918.7	921.5	-
Offices of dentists .....	802	479.7	468.6	489.6	491.3	-	423.3	413.9	432.4	433.1	-
Nursing and personal care facilities .....	805	1,296.7	1,279.3	1,309.6	1,310.4	-	1,171.2	1,155.7	1,181.9	1,181.8	-
Skilled nursing care facilities .....	8051	865.3	854.8	874.3	874.7	-	-	-	-	-	-
Nursing and personal care, nec .....	8059	431.3	424.5	435.3	435.7	-	-	-	-	-	-
Hospitals .....	806	3,151.9	3,080.7	3,223.6	3,235.1	-	2,874.9	2,808.5	2,940.4	2,952.7	-
General medical and surgical hospitals .....	8062	2,950.0	2,884.0	3,017.4	3,027.5	-	-	-	-	-	-
Psychiatric hospitals .....	8063	67.6	65.6	69.3	70.0	-	-	-	-	-	-
Specialty hospitals, excluding psychiatric .....	8069	134.2	131.1	136.9	137.6	-	-	-	-	-	-
Medical and dental laboratories .....	807	140.8	135.3	146.5	147.0	-	-	-	-	-	-
Outpatient care facilities .....	808	269.0	258.9	276.8	277.2	-	-	-	-	-	-

See footnotes at end of table.



**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonagricultural payrolls by detailed industry—Continued**

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>	Avg 1987	Jan 1987	Dec 1987	Jan. 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>
<b>Services—Continued</b>											
Legal services ..	81	792.0	772.6	801.4	796.7	-	665.5	649.0	671.9	666.5	-
Educational services ..	82	1,426.1	1,429.9	1,508.3	1,412.2	-	-	-	-	-	-
Elementary and secondary schools .....	821	360.3	371.2	374.5	372.7	-	-	-	-	-	-
Colleges and universities .....	822	911.5	909.3	976.9	886.1	-	-	-	-	-	-
Correspondence and vocational schools .....	824	71.6	71.4	73.5	72.5	-	-	-	-	-	-
Social services .....	83	1,539.6	1,500.3	1,591.1	1,584.6	-	-	-	-	-	-
Individual and family services ..	832	313.5	298.8	325.4	324.0	-	-	-	-	-	-
Job training and related services ....	833	265.2	256.1	263.8	261.1	-	-	-	-	-	-
Residential care ..	836	336.6	327.5	344.9	344.1	-	-	-	-	-	-
Museums, botanical and zoological gardens .....	84	50.7	46.1	51.8	49.7	-	-	-	-	-	-
Membership organizations ..	86	1,536.1	1,509.4	1,535.7	1,513.7	-	-	-	-	-	-
Business associations ..	861	91.5	90.0	91.3	91.2	-	-	-	-	-	-
Labor organizations ..	863	130.8	131.0	132.0	127.8	-	-	-	-	-	-
Civic and social associations ..	864	355.2	331.8	352.6	337.3	-	-	-	-	-	-
Miscellaneous services .....	89	1,309.0	1,276.7	1,328.1	1,339.3	-	1,064.8	1,039.4	1,077.6	1,087.4	-
Engineering and architectural services ..	891	700.3	677.7	714.7	711.9	-	590.5	571.2	603.1	598.8	-
Noncommercial research organizations .....	892	129.9	126.0	132.1	129.5	-	-	-	-	-	-
Accounting, auditing, and bookkeeping .....	893	451.9	447.4	453.5	470.1	-	350.3	348.8	347.8	364.1	-
<b>Government</b> .....		17,063	16,927	17,538	17,238	17,592	-	-	-	-	-
<b>Federal Government<sup>4</sup></b> ..		2,943	2,888	2,972	2,958	2,968	-	-	-	-	-
<b>Executive, by agency<sup>4</sup></b> ..		2,885.5	2,831.9	2,914.3	-	-	-	-	-	-	-
Department of Defense ..		985.3	964.8	991.5	-	-	-	-	-	-	-
Postal Service <sup>5</sup> ..		810.3	808.1	832.9	-	-	-	-	-	-	-
Other executive agencies ..		1,089.9	1,059.0	1,089.9	-	-	-	-	-	-	-
Legislative ..		38.0	37.6	37.9	-	-	-	-	-	-	-
Judicial ..		19.6	18.9	20.0	-	-	-	-	-	-	-
<b>Federal government, by industry:</b>											
Manufacturing activities ..		125.2	122.9	126.9	126.0	-	-	-	-	-	-
Shipbuilding and repairing ..	3731	76.6	73.7	78.2	77.2	-	-	-	-	-	-
Transportation and public utilities, except Postal Service ..		39.9	38.3	40.1	39.9	-	-	-	-	-	-
Services ..		412.5	402.4	413.5	410.2	-	-	-	-	-	-
Hospitals ..	806	251.3	244.6	253.0	253.2	-	-	-	-	-	-
<b>State government</b> ..		3,952	3,898	4,076	3,962	4,103	-	-	-	-	-
Hospitals ..	806	449.9	445.1	453.4	453.7	-	-	-	-	-	-
Education ..	82	1,585.6	1,564.3	1,712.8	1,593.9	-	-	-	-	-	-
General administration, including executive, legislative, and judicial functions ..		1,346.0	1,328.5	1,343.0	1,346.1	-	-	-	-	-	-
<b>Local government</b> ..		10,167	10,141	10,490	10,318	10,521	-	-	-	-	-
Transportation and public utilities ..		493.2	488.6	495.4	495.0	-	-	-	-	-	-
Hospitals ..	806	623.2	612.9	635.4	636.6	-	-	-	-	-	-
Education ..	82	5,643.6	5,766.9	5,992.3	5,841.2	-	-	-	-	-	-
General administration, including executive, legislative, and judicial functions ..		3,070.9	2,958.4	3,040.2	3,024.6	-	-	-	-	-	-

<sup>1</sup> Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

<sup>2</sup> Data relate to line haul railroads with operating revenues of \$50,000,000 or more.

<sup>3</sup> Data for nonoffice sales agents are excluded from the nonsupervisory count for all series in this division.

<sup>4</sup> Prepared by the Office of Personnel Management. Data relate to

civilian employment only and exclude the Central Intelligence Agency and the National Security Agency.

<sup>5</sup> Includes rural mail carriers.

- Data not available.

<sup>6</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1986 forward are subject to revision.

**ESTABLISHMENT DATA  
WOMEN EMPLOYEES  
NOT SEASONALLY ADJUSTED**

**B-3. Women employees on nonagricultural payrolls by major industry and manufacturing group**

(In thousands)

Industry	Avg. 1987	Dec. 1986	Oct. 1987	Nov. 1987	Dec. 1987
<b>Total</b> .....	47,263	47,035	48,164	48,502	48,777
<b>Total private</b> .....	38,555	38,229	39,184	39,418	39,699
<b>Goods-producing</b> .....	6,910	6,839	7,036	7,045	7,024
Mining .....	98	98	98	98	99
Construction .....	534	515	546	545	540
<b>Manufacturing</b> .....	6,278	6,226	6,392	6,402	6,385
<b>Durable goods</b> .....	3,003	2,990	3,048	3,058	3,060
Lumber and wood products .....	118	113	121	120	120
Furniture and fixtures .....	161	157	165	167	167
Stone, clay, and glass products .....	114	113	115	115	115
Primary metal industries .....	101	99	103	104	104
Fabricated metal products .....	324	322	329	329	329
Machinery, except electrical .....	448	442	453	455	459
Electrical and electronic equipment .....	874	887	884	887	890
Transportation equipment .....	391	389	394	396	397
Instruments and related products .....	301	301	304	305	305
Miscellaneous manufacturing .....	171	167	181	181	174
<b>Nondurable goods</b> .....	3,276	3,236	3,344	3,344	3,325
Food and kindred products .....	517	511	542	530	517
Tobacco manufactures .....	18	20	20	19	20
Textile mill products .....	352	349	357	357	355
Apparel and other textile products .....	887	886	902	902	892
Paper and allied products .....	166	165	167	168	168
Printing and publishing .....	644	632	650	658	661
Chemicals and allied products .....	295	286	299	301	303
Petroleum and coal products .....	24	24	24	24	24
Rubber and misc. plastics products .....	283	276	291	292	294
Leather and leather products .....	90	87	93	93	92
<b>Service-producing</b> .....	40,353	40,196	41,128	41,457	41,753
Transportation and public utilities .....	1,532	1,509	1,563	1,561	1,564
Wholesale trade .....	1,709	1,686	1,741	1,749	1,752
Retail trade .....	9,677	9,974	9,821	10,024	10,270
Finance, insurance, and real estate .....	4,109	4,013	4,136	4,141	4,157
<b>Services</b> .....	14,618	14,208	14,887	14,898	14,932
<b>Government</b> .....	8,708	8,806	8,980	9,084	9,078
Federal .....	1,048	1,028	1,049	1,053	1,057
State .....	1,902	1,813	1,967	1,983	1,979
Local .....	5,758	5,865	5,964	6,048	6,042

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are

introduced, all unadjusted data from April 1986 forward are subject to revision.

**ESTABLISHMENT DATA  
EMPLOYMENT  
SEASONALLY ADJUSTED**

**B-4. Employees on nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted**

(In thousands)

Industry	1987												1988	
	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan <sup>P</sup>	Feb <sup>P</sup>	
<b>Total</b>	101,150	101,329	101,598	101,709	101,818	102,126	102,275	102,434	102,983	103,285	103,612	103,786	104,317	
<b>Total private</b>	84,215	84,352	84,560	84,677	84,787	85,106	85,229	85,386	85,795	86,072	86,341	86,533	86,996	
<b>Goods-producing</b>	24,743	24,749	24,759	24,752	24,761	24,850	24,886	24,917	25,064	25,169	25,259	25,204	25,332	
<b>Mining</b> . . . . .	719	722	729	735	738	744	751	759	764	759	756	745	746	
Oil and gas extraction . . . . .	406	408	416	420	425	430	434	439	443	439	436	428	429	
<b>Construction</b> . . . . .	5,038	5,032	5,019	4,999	5,008	5,002	5,006	4,989	5,053	5,074	5,121	5,059	5,166	
General building contractors . . . . .	1,309	1,291	1,272	1,267	1,266	1,261	1,262	1,260	1,279	1,280	1,290	1,303	1,320	
<b>Manufacturing</b>	18,986	18,995	19,011	19,018	19,015	19,104	19,129	19,169	19,247	19,336	19,382	19,400	19,420	
<b>Durable goods</b>	11,179	11,176	11,175	11,175	11,176	11,195	11,248	11,268	11,319	11,367	11,403	11,405	11,413	
Lumber and wood products . . . . .	733	734	736	738	735	740	736	740	741	750	753	753	754	
Furniture and fixtures . . . . .	501	502	504	509	510	518	518	520	524	526	530	533	532	
Stone, clay, and glass products . . . . .	588	586	586	584	582	582	582	581	583	588	590	585	588	
Primary metal industries . . . . .	733	739	743	742	746	750	754	764	768	771	771	768	771	
Blast furnaces and basic steel products . . . . .	261	266	272	272	275	277	278	283	286	287	285	284	287	
Fabricated metal products . . . . .	1,419	1,419	1,423	1,420	1,424	1,424	1,425	1,429	1,438	1,446	1,451	1,453	1,454	
Machinery, except electrical . . . . .	2,018	2,015	2,022	2,025	2,028	2,033	2,044	2,053	2,064	2,074	2,085	2,096	2,097	
Electrical and electronic equipment . . . . .	2,106	2,099	2,092	2,087	2,080	2,088	2,095	2,096	2,111	2,118	2,128	2,130	2,128	
Transportation equipment . . . . .	2,022	2,022	2,011	2,011	2,010	1,995	2,028	2,018	2,019	2,016	2,018	2,006	2,005	
Motor vehicles and equipment . . . . .	859	854	847	843	842	814	848	837	838	835	832	822	822	
Instruments and related products . . . . .	695	694	694	693	693	695	695	695	697	701	701	703	703	
Miscellaneous manufacturing . . . . .	364	366	364	366	368	370	371	372	374	377	376	378	381	
<b>Nondurable goods</b> . . . . .	7,807	7,819	7,836	7,843	7,839	7,909	7,881	7,901	7,928	7,969	7,979	7,995	8,007	
Food and kindred products . . . . .	1,630	1,635	1,642	1,633	1,634	1,644	1,632	1,631	1,635	1,645	1,645	1,662	1,663	
Tobacco manufactures . . . . .	58	57	56	57	57	57	56	55	55	56	56	56	55	
Textile mill products . . . . .	722	725	724	727	729	736	732	735	736	738	739	737	738	
Apparel and other textile products . . . . .	1,101	1,103	1,104	1,107	1,108	1,130	1,110	1,117	1,123	1,128	1,121	1,115	1,114	
Paper and allied products . . . . .	679	678	677	677	676	678	677	681	678	680	681	681	682	
Printing and publishing . . . . .	1,483	1,485	1,493	1,497	1,498	1,504	1,508	1,509	1,514	1,522	1,525	1,531	1,537	
Chemicals and allied products . . . . .	1,018	1,017	1,018	1,022	1,014	1,026	1,031	1,031	1,035	1,041	1,047	1,048	1,051	
Petroleum and coal products . . . . .	164	164	164	164	164	164	164	166	167	167	167	167	168	
Rubber and misc. plastics products . . . . .	805	807	809	809	810	815	819	824	833	840	845	845	846	
Leather and leather products . . . . .	147	148	149	150	149	155	152	152	152	152	153	153	153	
<b>Service-producing</b>	76,407	76,580	76,839	76,956	77,057	77,276	77,389	77,517	77,919	78,116	78,353	78,582	78,985	
<b>Transportation and public utilities</b>	5,315	5,333	5,348	5,344	5,350	5,363	5,377	5,416	5,436	5,459	5,473	5,486	5,497	
Transportation . . . . .	3,097	3,112	3,124	3,120	3,128	3,133	3,147	3,183	3,198	3,218	3,233	3,245	3,257	
Communication and public utilities . . . . .	2,218	2,221	2,224	2,224	2,222	2,230	2,230	2,233	2,238	2,241	2,240	2,241	2,240	
<b>Wholesale trade</b> . . . . .	5,757	5,766	5,772	5,775	5,781	5,797	5,807	5,815	5,831	5,851	5,871	5,887	5,903	
Durable goods . . . . .	3,391	3,397	3,397	3,401	3,405	3,418	3,422	3,431	3,444	3,456	3,473	3,482	3,494	
Nondurable goods . . . . .	2,366	2,369	2,375	2,374	2,376	2,379	2,385	2,384	2,387	2,395	2,398	2,405	2,409	
<b>Retail trade</b>	18,140	18,136	18,197	18,205	18,226	18,274	18,256	18,314	18,408	18,443	18,458	18,628	18,739	
General merchandise stores . . . . .	2,373	2,380	2,385	2,390	2,387	2,407	2,411	2,415	2,459	2,454	2,453	2,501	2,545	
Food stores . . . . .	2,940	2,944	2,953	2,956	2,960	2,959	2,962	2,958	2,969	2,982	2,996	3,021	3,037	
Automotive dealers and service stations . . . . .	1,979	1,979	1,978	1,978	1,983	1,985	1,985	1,988	2,000	2,003	2,013	2,021	2,037	
Eating and drinking places . . . . .	5,956	5,964	5,962	5,976	5,982	5,985	5,992	6,018	6,032	6,047	6,064	6,083	6,098	
<b>Finance, insurance, and real estate</b> . . . . .	6,501	6,526	6,558	6,576	6,586	6,608	6,624	6,629	6,650	6,657	6,668	6,681	6,677	
Finance . . . . .	3,243	3,256	3,272	3,276	3,280	3,291	3,293	3,292	3,296	3,301	3,301	3,307	3,296	
Insurance . . . . .	2,016	2,022	2,032	2,037	2,037	2,043	2,050	2,054	2,068	2,069	2,082	2,084	2,092	
Real estate . . . . .	1,242	1,248	1,254	1,263	1,269	1,274	1,281	1,283	1,286	1,287	1,285	1,290	1,289	
<b>Services</b>	23,759	23,842	23,926	24,025	24,083	24,214	24,279	24,295	24,406	24,493	24,612	24,647	24,848	
Business services . . . . .	4,984	5,020	5,044	5,083	5,086	5,105	5,133	5,152	5,194	5,195	5,217	5,216	5,269	
Health services . . . . .	6,748	6,773	6,800	6,822	6,853	6,887	6,923	6,943	6,987	7,023	7,063	7,087	7,147	
<b>Government</b>	16,935	16,977	17,038	17,031	17,031	17,020	17,046	17,048	17,188	17,213	17,271	17,253	17,321	
Federal . . . . .	2,916	2,922	2,933	2,935	2,935	2,936	2,940	2,962	2,965	2,977	2,981	2,982	2,989	
State . . . . .	3,927	3,930	3,943	3,947	3,932	3,952	3,964	3,957	3,973	3,978	3,996	3,994	4,007	
Local . . . . .	10,092	10,125	10,162	10,149	10,164	10,132	10,142	10,129	10,250	10,258	10,294	10,277	10,325	

<sup>P</sup> = preliminary

NOTE Establishment survey estimates are currently projected from March 1986

benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 forward are subject to revision

**ESTABLISHMENT DATA  
WOMEN EMPLOYEES  
SEASONALLY ADJUSTED**

**B-5. Women employees on nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted**

(In thousands)

Industry	1986	1987											
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Total</b> .....	46,358	46,517	46,654	46,766	46,937	46,999	47,142	47,372	47,461	47,509	47,811	47,910	48,077
<b>Total private</b> .....	37,767	37,909	38,057	38,133	38,271	38,337	38,445	38,649	38,754	38,783	38,992	39,099	39,219
<b>Goods-producing</b> .....	6,842	6,838	6,843	6,846	6,863	6,869	6,876	6,923	6,915	6,936	6,976	7,010	7,024
<b>Mining</b> .....	98	97	97	96	97	97	98	98	98	99	99	98	99
<b>Construction</b> .....	519	522	524	526	530	533	534	536	536	537	540	543	544
<b>Manufacturing</b> .....	6,225	6,219	6,222	6,224	6,236	6,239	6,244	6,289	6,281	6,300	6,337	6,369	6,381
<b>Durable goods</b> .....	2,985	2,979	2,983	2,978	2,980	2,980	2,983	2,990	3,005	3,016	3,036	3,045	3,054
Lumber and wood products .....	115	115	117	117	117	118	118	119	118	119	120	120	121
Furniture and fixtures .....	155	156	156	157	157	159	160	163	162	163	165	165	166
Stone, clay, and glass products .....	113	114	113	113	114	114	114	113	114	113	114	115	116
Primary metal industries .....	99	99	100	100	100	99	100	100	102	103	103	104	104
Fabricated metal products .....	321	320	320	320	322	322	322	323	324	325	327	328	328
Machinery, except electrical .....	441	440	441	441	444	444	444	446	450	453	455	456	459
Electrical and electronic equipment .....	884	880	876	870	868	866	864	869	872	876	881	883	887
Transportation equipment .....	389	388	392	392	391	390	390	385	391	392	393	394	395
Instruments and related products .....	301	300	300	299	299	299	299	301	300	302	304	304	304
Miscellaneous manufacturing .....	167	167	168	169	168	169	171	171	172	172	174	176	174
<b>Nondurable goods</b> .....	3,240	3,240	3,239	3,246	3,256	3,259	3,261	3,299	3,276	3,282	3,301	3,324	3,327
Food and kindred products .....	514	514	514	517	518	515	515	521	513	513	518	521	520
Tobacco manufactures .....	19	19	19	19	18	19	18	17	17	17	17	18	19
Textile mill products .....	349	349	350	352	351	351	352	355	354	353	354	355	354
Apparel and other textile products .....	889	883	878	878	880	883	883	902	884	890	894	899	894
Paper and allied products .....	165	165	165	165	165	165	165	165	165	166	165	168	169
Printing and publishing .....	629	632	634	636	640	641	643	644	647	647	650	655	657
Chemicals and allied products .....	287	289	290	290	291	292	292	295	298	297	299	302	304
Petroleum and coal products .....	25	24	24	24	24	24	24	24	24	24	24	24	24
Rubber and misc. plastics products .....	276	278	278	278	281	280	280	282	283	284	288	291	294
Leather and leather products .....	87	87	87	87	88	89	89	94	91	91	92	91	92
<b>Service-producing</b> .....	39,516	39,679	39,811	39,920	40,074	40,130	40,266	40,449	40,546	40,573	40,835	40,900	41,053
<b>Transportation and public utilities</b> .....	1,501	1,507	1,510	1,517	1,520	1,524	1,531	1,531	1,539	1,544	1,554	1,555	1,555
<b>Wholesale trade</b> .....	1,675	1,682	1,691	1,695	1,695	1,693	1,703	1,712	1,721	1,718	1,724	1,733	1,742
<b>Retail trade</b> .....	9,504	9,547	9,607	9,603	9,636	9,629	9,642	9,679	9,712	9,720	9,762	9,780	9,790
<b>Finance, insurance, and real estate</b> .....	4,016	4,036	4,053	4,064	4,087	4,100	4,109	4,126	4,132	4,135	4,148	4,153	4,161
<b>Services</b> .....	14,229	14,299	14,353	14,408	14,470	14,522	14,584	14,678	14,735	14,730	14,828	14,868	14,947
<b>Government</b> .....	8,591	8,608	8,597	8,633	8,666	8,662	8,697	8,723	8,707	8,726	8,819	8,811	8,858
Federal .....	1,035	1,037	1,038	1,041	1,043	1,045	1,044	1,044	1,048	1,056	1,057	1,061	1,063
State .....	1,869	1,878	1,871	1,883	1,890	1,897	1,896	1,913	1,916	1,908	1,921	1,923	1,935
Local .....	5,687	5,693	5,688	5,709	5,733	5,720	5,757	5,766	5,743	5,762	5,841	5,827	5,860

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all

seasonally adjusted data from January 1983 forward are subject to revision.

**ESTABLISHMENT DATA  
EMPLOYMENT  
SEASONALLY ADJUSTED**

**B-6. Production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted**

(in thousands)

Industry	1987												1988	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. <sup>p</sup>	Feb. <sup>p</sup>	
Total private .....	68,149	68,263	68,419	68,488	68,598	68,843	68,951	69,028	69,351	69,554	69,835	69,924	70,339	
Goods-producing .....	17,379	17,380	17,375	17,360	17,377	17,441	17,476	17,498	17,620	17,698	17,787	17,701	17,844	
Mining .....	508	511	518	525	528	534	539	545	551	548	545	535	534	
Construction ....	3,955	3,944	3,918	3,889	3,891	3,887	3,899	3,881	3,940	3,953	4,001	3,914	4,034	
Manufacturing .....	12,916	12,925	12,939	12,946	12,958	13,020	13,038	13,072	13,129	13,197	13,241	13,252	13,276	
Durable goods .....	7,398	7,399	7,406	7,409	7,421	7,425	7,475	7,494	7,530	7,568	7,597	7,590	7,606	
Lumber and wood products .....	614	615	617	618	615	619	615	618	618	627	630	628	631	
Furniture and fixtures .....	400	402	403	407	408	416	415	416	420	422	425	427	427	
Stone, clay, and glass products .....	454	453	453	452	451	449	450	451	453	456	459	454	456	
Primary metal industries .....	547	553	559	557	561	565	569	578	582	586	586	583	586	
Blast furnaces and basic steel products .....	194	199	205	205	207	209	211	214	217	219	218	218	221	
Fabricated metal products .....	1,051	1,051	1,053	1,050	1,054	1,055	1,057	1,061	1,067	1,075	1,080	1,081	1,083	
Machinery, except electrical .....	1,190	1,190	1,198	1,203	1,210	1,212	1,222	1,230	1,238	1,245	1,251	1,259	1,263	
Electrical and electronic equipment .....	1,223	1,218	1,216	1,215	1,212	1,221	1,226	1,226	1,238	1,241	1,252	1,250	1,251	
Transportation equipment .....	1,276	1,273	1,265	1,265	1,265	1,241	1,275	1,265	1,262	1,259	1,258	1,248	1,247	
Motor vehicles and equipment .....	668	663	657	655	655	629	664	652	653	650	648	639	637	
Instruments and related products .....	377	376	376	375	376	378	377	379	381	383	383	385	385	
Miscellaneous manufacturing .....	266	268	266	267	269	269	269	270	271	274	273	275	277	
Nondurable goods .....	5,518	5,526	5,533	5,537	5,537	5,595	5,563	5,578	5,599	5,629	5,644	5,662	5,670	
Food and kindred products .....	1,150	1,154	1,158	1,153	1,150	1,159	1,146	1,144	1,150	1,159	1,160	1,175	1,177	
Tobacco manufactures .....	44	44	43	44	42	43	42	41	40	41	42	42	39	
Textile mill products .....	627	630	628	631	633	640	636	638	639	641	641	639	642	
Apparel and other textile products .....	925	926	929	927	930	950	930	938	943	948	943	940	937	
Paper and allied products .....	516	515	514	513	513	515	514	517	515	516	517	518	519	
Printing and publishing .....	833	832	832	836	839	841	845	846	849	853	856	863	869	
Chemicals and allied products .....	569	570	569	572	568	576	579	579	580	584	589	589	591	
Petroleum and coal products .....	106	106	106	107	108	107	108	108	109	108	110	110	111	
Rubber and misc. plastics products .....	625	626	629	629	629	633	636	639	647	652	658	658	658	
Leather and leather products .....	123	123	125	125	125	131	127	128	127	127	128	128	127	
Service-producing .....	50,770	50,883	51,044	51,128	51,221	51,402	51,475	51,530	51,731	51,856	52,048	52,223	52,495	
Transportation and public utilities .....	4,401	4,419	4,428	4,429	4,439	4,449	4,465	4,497	4,514	4,532	4,533	4,549	4,561	
Wholesale trade .....	4,611	4,617	4,622	4,623	4,632	4,641	4,642	4,644	4,653	4,673	4,690	4,707	4,719	
Retail trade .....	16,141	16,132	16,189	16,193	16,195	16,246	16,242	16,257	16,346	16,360	16,384	16,525	16,609	
Finance, insurance, and real estate .....	4,806	4,823	4,840	4,844	4,851	4,853	4,861	4,861	4,862	4,858	4,878	4,879	4,872	
Services .....	20,811	20,892	20,965	21,039	21,104	21,213	21,265	21,271	21,356	21,433	21,563	21,563	21,734	

<sup>1</sup> Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 forward are subject to revision.

**ESTABLISHMENT DATA  
INDEXES OF DIFFUSION  
SEASONALLY ADJUSTED**

**B-7. Indexes of diffusion: Percent of industries in which employment<sup>1</sup> increased, seasonally adjusted**

Time span	Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Over 1-month span	1986.....	53.2	48.1	48.1	53.5	52.4	46.8	52.4	56.2	55.1	53.2	59.7	59.7
	1987 .....	53.5	56.8	58.6	58.4	58.6	55.7	68.6	54.6	65.4	65.4	71.9	63.2
	1988..... <sup>p</sup>	57.6	<sup>p</sup> 59.7										
Over 3-month span	1986.....	49.7	44.9	45.7	48.4	47.6	45.4	48.4	55.1	55.9	58.1	58.6	60.3
	1987 .....	58.6	59.5	61.1	61.6	61.4	67.3	66.2	75.1	69.7	77.8	75.9	<sup>p</sup> 70.0
	1988 .... <sup>p</sup>	65.9											
Over 6-month span	1986.....	47.6	47.6	43.0	43.2	45.4	48.4	47.3	53.0	59.2	58.9	57.8	58.9
	1987.....	61.9	62.7	58.9	67.3	67.6	71.1	76.2	78.6	80.3	<sup>p</sup> 74.9	<sup>p</sup> 76.5	
	1988.....												
Over 12-month span	1986.....	43.2	44.1	46.2	45.7	47.8	49.5	49.5	51.6	54.9	52.2	55.1	56.5
	1987.....	62.2	63.5	67.3	68.9	73.8	72.4	<sup>p</sup> 76.2	<sup>p</sup> 76.5				
	1988.....												

<sup>1</sup> Based on the number of employees, seasonally adjusted for 1, 3, and 6 month spans, on the payrolls of 185 private nonagricultural industries. Data for the 12-month span are unadjusted.

<sup>p</sup> = preliminary.

NOTE: Figures are the percent of industries with employment

rising. (Half of the unchanged components are counted as rising.) Data are centered within the spans. Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 forward are subject to revision.



**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry**

(In thousands)

State and area	Total			Mining			Construction		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Alabama</b> .....	1,464.6	1,527.9	1,505.5	11.4	11.6	11.5	69.7	74.4	70.3
Birmingham .....	381.2	399.5	394.9	5.8	5.7	5.6	22.2	24.1	23.4
Huntsville .....	118.5	126.4	124.1	.1	1	1	4.9	5.5	5.1
Mobile .....	157.2	161.9	160.7	5	.5	5	9.9	9.5	9.1
Montgomery .....	122.3	127.5	126.4	.1	2	2	7.7	8.0	7.8
Tuscaloosa .....	56.9	59.2	58.7	2.7	2.5	2.5	2.6	2.8	2.8
<b>Alaska</b> .....	196.6	203.1	196.0	7.9	8.2	8.2	8.8	8.8	7.6
<b>Arizona</b> .....	1,353.4	1,423.1	1,404.1	11.1	11.7	11.7	102.5	97.9	95.9
Phoenix .....	894.5	936.1	923.2	.6	6	6	70.7	65.4	64.0
Tucson .....	238.5	251.8	248.7	1.6	1.6	1.6	19.2	19.2	18.9
<b>Arkansas</b> .....	803.4	851.2	833.3	3.9	4.0	3.8	30.9	33.8	30.5
Fayetteville-Springdale .....	44.9	48.7	47.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.9	1.7
Fort Smith .....	72.8	78.1	76.2	1.0	.9	.9	2.8	2.9	2.7
Little Rock-North Little Rock .....	223.7	233.9	229.1	4	.4	.4	10.3	11.0	9.8
Pine Bluff .....	31.3	32.5	31.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.4	1.3
<b>California</b> .....	11,355.0	11,973.2	11,806.5	39.7	41.0	40.5	538.9	599.7	583.6
Anaheim-Santa Ana .....	1,052.8	1,112.0	1,099.2	1.8	1.5	1.4	59.6	62.6	61.8
Bakersfield .....	153.5	161.4	158.0	12.7	13.1	12.8	8.8	9.2	8.6
Fresno .....	195.3	208.1	203.3	6	6	6	11.7	12.3	11.7
Los Angeles-Long Beach .....	3,937.5	4,110.5	4,052.1	9.5	9.5	9.3	136.6	154.7	149.9
Modesto .....	98.2	107.6	105.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.6	7.0	6.6
Oakland .....	795.4	829.7	816.5	3.0	3.2	3.1	45.3	49.0	47.2
Oxnard-Ventura .....	198.2	209.9	208.3	2.6	2.6	2.6	11.8	13.1	13.0
Riverside-San Bernardino .....	584.9	630.1	625.0	1.2	1.2	1.2	46.5	52.6	51.9
Sacramento .....	530.0	566.3	560.4	8	8	8	30.9	34.0	32.3
Salinas-Seaside-Monterey .....	101.2	107.1	( <sup>2</sup> )	4	4	( <sup>2</sup> )	4.4	4.7	( <sup>2</sup> )
San Diego .....	837.5	890.6	882.2	3	8	8	51.3	57.1	56.5
San Francisco .....	918.8	952.9	939.3	1.0	.9	9	33.0	36.0	34.0
San Jose .....	768.5	798.9	789.0	2	2	2	30.5	31.9	30.8
Santa Barbara-Santa Maria-Lompoc .....	143.4	117.2	145.8	1.2	1.3	1.2	6.4	6.6	6.5
Santa Rosa-Petaluma .....	120.2	127.6	125.5	7	.7	7	7.5	8.0	7.9
Stockton .....	136.7	143.0	140.5	1	.1	1	7.5	8.1	7.6
Vallejo-Fairfield-Napa .....	119.2	127.9	125.9	3	3	.3	8.0	9.1	8.8
<b>Colorado</b> .....	1,393.6	1,415.6	1,395.5	21.7	21.1	20.8	67.0	63.7	59.5
Boulder-Longmont .....	102.5	106.8	103.9	2	3	3	3.5	3.4	3.2
Denver .....	787.8	800.9	788.6	14.1	13.9	13.8	36.7	36.1	34.2
<b>Connecticut</b> .....	1,603.5	1,674.5	1,640.3	1.4	1.6	1.4	68.9	79.5	72.9
Bridgeport-Milford .....	189.9	202.2	197.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.6	9.2	8.6
Hartford .....	464.0	487.5	481.9	2	3	2	17.8	20.7	19.0
New Britain .....	64.1	67.0	( <sup>2</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>2</sup> )	3.3	4.5	( <sup>2</sup> )
New Haven-Meriden .....	243.5	256.1	250.3	.2	3	3	11.9	13.3	12.4
Stamford .....	122.6	129.7	127.2	6	5	5	4.9	5.6	5.3
Waterbury .....	85.0	89.1	86.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.7	4.7	3.9
<b>Delaware</b> .....	305.9	330.9	319.9	.1	.1	1	17.7	21.1	18.3
Wilmington .....	262.8	282.1	274.7	2	2	.2	14.4	17.6	15.3
<b>District of Columbia</b> .....	633.5	664.2	654.1	1	1	1	14.8	16.1	15.5
Washington MSA .....	2,007.1	2,124.6	2,086.9	1.1	1.3	1.2	121.7	132.1	126.1
<b>Florida</b> .....	4,728.2	5,037.3	5,022.8	8.6	8.6	8.7	330.7	348.7	346.9
Daytona Beach .....	107.8	113.6	113.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.9	8.4	8.5
Fort Lauderdale-Hollywood-Pompano Beach .....	457.9	481.6	480.7	4	4	4	35.3	35.6	35.3
Fort Myers-Cape Coral .....	105.6	113.4	114.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	11.8	12.6	12.7
Gainesville .....	91.3	95.1	( <sup>2</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>2</sup> )	4.0	4.3	( <sup>2</sup> )
Jacksonville .....	383.0	406.3	404.9	.5	4	4	26.6	27.6	27.1
Lakeland-Winter Haven .....	138.6	145.9	( <sup>2</sup> )	3.7	3.7	( <sup>2</sup> )	8.2	8.8	( <sup>2</sup> )
Melbourne-Titusville-Palm Bay .....	137.9	147.5	147.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.2	8.3	8.1
Miami-Hialeah .....	813.1	839.4	834.3	.9	.9	9	39.5	40.9	40.9
Orlando .....	457.4	489.3	484.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	32.3	34.4	33.8
Pensacola .....	119.9	125.9	123.8	.4	4	3	9.1	9.3	8.9
Sarasota .....	102.3	107.5	107.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10.6	10.7	10.7
Tallahassee .....	106.3	111.1	109.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.5	5.9	5.9
Tampa-St. Petersburg-Clearwater .....	780.9	815.6	813.7	7	.7	6	58.0	59.5	59.4
West Palm Beach-Boca Raton-DeLay Beach .....	322.5	344.7	345.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	27.8	29.6	29.0

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Alabama</b>	357.6	373.4	371.1	71.3	72.3	72.1	322.1	344.8	333.6
Birmingham	52.0	55.3	54.8	27.3	27.8	27.7	95.9	102.5	99.3
Huntsville	30.3	31.8	31.0	2.8	2.9	2.9	22.5	24.4	23.6
Mobile	26.0	25.8	26.1	8.8	9.1	9.2	42.6	44.4	43.3
Montgomery	18.4	19.4	19.3	4.8	5.0	5.0	27.8	29.2	28.6
Tuscaloosa	9.0	9.6	9.7	1.9	1.9	1.8	11.8	12.7	12.4
<b>Alaska</b>	8.4	10.5	11.0	16.4	17.0	16.6	38.7	41.4	38.5
<b>Arizona</b>	186.5	188.6	187.9	68.5	75.0	73.9	335.3	351.2	347.8
Phoenix	134.7	137.3	136.6	46.4	51.4	50.5	229.2	236.9	234.1
Tucson	30.6	31.0	31.0	9.2	9.8	9.8	54.3	58.1	57.4
<b>Arkansas</b>	211.8	224.4	222.2	48.8	52.4	51.3	181.9	193.8	188.4
Fayetteville-Springdale	10.6	11.8	11.9	4.0	4.5	4.4	10.5	11.2	10.8
Fort Smith	25.5	27.4	26.9	3.6	3.9	3.9	15.5	15.9	15.4
Little Rock-North Little Rock	31.4	32.9	32.5	15.9	16.8	16.5	54.8	56.9	55.4
Pine Bluff	5.9	6.4	6.4	2.5	2.5	2.4	6.8	7.0	6.7
<b>California</b>	2,056.1	2,126.1	2,110.6	574.7	591.5	581.5	2,683.1	2,896.7	2,814.8
Anaheim-Santa Ana	241.9	253.0	251.9	34.2	34.5	35.0	261.8	285.5	279.3
Bakersfield	10.3	11.2	10.8	7.8	7.8	7.8	37.0	39.5	38.0
Fresno	19.6	22.9	22.6	10.5	11.2	11.1	50.8	54.9	53.2
Los Angeles-Long Beach	895.0	917.6	912.8	203.9	209.8	207.8	897.0	954.4	924.0
Modesto	20.1	22.7	22.4	4.2	4.6	4.4	25.6	28.7	28.3
Oakland	101.3	104.9	104.4	56.2	56.6	55.6	198.3	210.2	205.3
Oxnard-Ventura	28.6	30.0	30.0	10.2	10.3	10.1	48.9	52.9	51.9
Riverside-San Bernardino	78.2	83.3	83.4	30.3	31.7	31.4	145.6	161.8	158.6
Sacramento	38.7	41.0	40.9	23.8	25.4	25.4	128.6	141.8	138.2
Salinas-Seaside-Monterey	8.6	9.6	(?)	4.9	5.1	(?)	26.8	29.1	(?)
San Diego	121.7	124.0	123.5	32.6	34.4	34.2	199.4	219.6	214.5
San Francisco	78.8	80.4	80.8	77.9	77.5	76.6	209.2	221.5	213.1
San Jose	258.3	261.7	259.9	21.0	22.4	21.9	149.1	158.3	155.1
Santa Barbara-Santa Maria-Lompoc	22.7	22.0	22.0	5.0	5.1	5.0	33.7	36.3	35.5
Santa Rosa-Petaluma	18.1	18.7	18.5	5.9	6.3	6.2	31.1	34.0	33.0
Stockton	21.6	22.5	21.6	8.0	8.3	8.2	31.5	34.4	33.6
Vallejo-Fairfield-Napa	10.8	11.7	11.4	4.5	4.6	4.5	28.2	31.2	30.7
<b>Colorado</b>	183.1	186.1	183.5	84.0	85.0	83.9	350.1	359.2	354.7
Boulder-Longmont	28.1	29.1	28.3	2.3	2.3	2.3	22.5	23.3	22.7
Denver	94.5	94.7	94.1	60.0	62.1	60.0	199.8	204.8	202.0
<b>Connecticut</b>	387.0	383.3	382.3	70.2	73.9	72.5	363.5	386.2	372.7
Bridgeport-Milford	57.2	58.6	58.0	8.4	9.3	9.3	44.7	48.8	46.0
Hartford	90.9	93.8	93.9	17.6	18.1	18.0	100.4	106.3	102.8
New Britain	21.6	20.7	(?)	2.9	3.3	(?)	13.0	13.6	(?)
New Haven-Meriden	46.4	46.5	46.5	17.0	18.3	18.1	56.5	60.5	57.5
Stamford	24.1	23.7	23.9	5.1	5.3	5.3	30.0	32.6	31.3
Waterbury	25.3	23.5	23.6	3.2	3.3	3.3	17.3	18.9	17.7
<b>Delaware</b>	69.8	70.4	66.5	13.3	13.9	13.9	66.7	75.0	71.5
Wilmington	60.2	59.9	56.8	14.2	15.1	15.2	55.5	60.8	59.2
<b>District of Columbia</b>	15.8	16.4	16.3	24.2	24.4	24.3	60.3	65.8	61.7
Washington MSA	85.4	87.4	86.6	98.1	104.0	102.2	405.6	435.2	417.9
<b>Florida</b>	522.5	541.2	543.3	248.9	263.4	262.4	1,286.3	1,390.1	1,370.8
Daytona Beach	11.4	12.0	12.0	3.3	3.6	3.6	31.8	33.8	33.7
Fort Lauderdale-Hollywood-Pompano Beach	44.4	46.2	46.0	21.3	23.1	23.0	137.6	145.5	144.8
Fort Myers-Cape Coral	5.4	5.6	5.6	4.6	5.0	5.1	32.2	34.1	34.1
Gainesville	5.3	5.7	(?)	1.7	1.7	(?)	20.7	21.6	(?)
Jacksonville	37.9	39.4	39.6	27.0	28.2	28.0	101.7	110.9	109.2
Lakeland-Winter Haven	22.9	23.2	(?)	5.9	6.4	(?)	32.3	40.6	(?)
Melbourne-Titusville-Palm Bay	27.4	28.7	28.8	5.7	6.0	6.0	32.0	35.2	34.9
Miami-Hialeah	92.7	96.0	96.1	68.8	68.4	68.1	217.2	228.3	223.3
Orlando	53.0	54.6	54.7	23.7	25.5	25.3	120.6	130.6	128.7
Pensacola	11.5	11.4	11.5	5.9	6.0	5.9	30.5	33.5	32.3
Sarasota	8.5	9.1	9.1	3.5	3.6	3.6	30.1	32.3	32.5
Tallahassee	4.6	4.6	4.5	3.0	3.1	3.2	22.6	23.4	23.0
Tampa-St. Petersburg-Clearwater	90.3	93.3	92.8	37.7	33.7	38.6	216.7	229.5	229.3
West Palm Beach-Boca Raton-Deer Beach	36.6	37.2	37.2	11.5	12.0	12.1	87.2	95.2	95.5

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Jan 1987	Dec. 1987	Jan 1988 <sup>p</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>	Jan 1987	Dec. 1987	Jan 1988 <sup>p</sup>
<b>Alabama</b> .....	69.8	70.2	69.5	263.3	278.7	276.0	299.4	302.5	301.4
Birmingham .....	29.1	29.3	29.1	89.2	93.2	93.4	59.7	61.6	61.6
Huntsville .....	3.4	3.6	3.6	25.8	28.2	28.1	28.7	29.9	29.7
Mobile .....	7.9	8.0	7.9	33.8	36.3	36.2	27.7	28.3	28.4
Montgomery .....	7.2	7.6	7.6	24.9	26.2	26.2	31.4	31.9	31.7
Tuscaloosa .....	2.0	2.1	2.1	7.8	8.3	8.3	19.1	19.3	19.1
<b>Alaska</b> .....	11.4	10.8	10.7	40.0	40.3	39.4	65.0	66.1	64.0
<b>Arizona</b> .....	91.8	95.1	95.0	330.6	353.0	353.5	227.1	250.6	238.4
Phoenix .....	72.6	75.3	75.4	222.8	237.6	237.5	117.5	131.6	124.5
Tucson .....	12.6	12.6	12.5	62.5	66.7	67.1	48.5	52.8	50.4
<b>Arkansas</b> .....	37.1	37.5	37.3	144.4	155.1	153.0	144.6	150.2	146.8
Fayetteville-Springdale .....	1.4	1.5	1.5	6.6	7.3	7.2	10.1	10.5	10.0
Fort Smith .....	2.7	2.7	2.6	14.4	16.8	16.4	7.3	7.6	7.4
Little Rock-North Little Rock .....	15.3	15.8	15.9	50.0	53.5	52.8	45.6	46.6	45.8
Pine Bluff .....	1.5	1.5	1.5	5.9	6.2	6.2	7.2	7.5	7.4
<b>California</b> .....	783.8	815.7	810.9	2,865.8	2,960.2	2,933.5	1,872.9	1,942.3	1,930.9
Anaheim-Santa Ana .....	88.9	91.2	90.2	250.6	266.2	264.5	114.0	117.5	115.1
Bakersfield .....	6.2	6.2	6.1	30.8	33.0	33.1	39.9	41.4	40.8
Fresno .....	13.3	13.2	12.8	45.0	48.0	47.1	43.8	45.0	44.2
Los Angeles-Long Beach .....	279.8	289.9	288.9	1,018.4	1,067.1	1,052.9	497.3	507.5	506.5
Modesto .....	4.4	4.6	4.6	20.1	21.6	21.4	17.2	18.4	18.2
Oakland .....	53.0	55.0	54.3	181.2	190.0	186.8	157.1	160.8	159.8
Oxnard-Ventura .....	10.3	10.3	10.3	45.7	49.7	49.9	40.1	41.0	40.5
Riverside-San Bernardino .....	25.3	26.9	26.6	138.0	148.4	147.7	119.8	124.2	124.2
Sacramento .....	32.1	33.8	33.7	111.0	122.3	122.0	164.1	167.2	167.1
Salinas-Seaside-Monterey .....	5.1	5.4	( <sup>2</sup> )	24.7	26.4	( <sup>2</sup> )	26.3	26.4	( <sup>2</sup> )
San Diego .....	58.8	61.5	61.2	218.4	233.4	232.2	154.5	158.8	159.3
San Francisco .....	113.0	113.0	113.9	272.2	287.2	284.7	133.7	136.4	135.3
San Jose .....	34.1	34.7	34.7	188.2	200.5	198.9	87.1	89.2	87.5
Santa Barbara-Santa Maria-Lompoc .....	8.4	8.6	8.6	39.0	40.0	39.7	27.0	27.3	27.3
Santa Rosa-Petaluma .....	8.2	8.4	8.4	26.9	28.7	28.5	21.8	22.8	22.3
Stockton .....	8.7	8.6	8.6	28.9	30.1	29.7	30.4	30.9	31.1
Vallejo-Fairfield-Napa .....	4.5	4.5	4.4	26.2	28.9	28.5	36.7	37.6	37.3
<b>Colorado</b> .....	99.5	98.2	98.1	330.5	332.1	331.2	257.7	270.2	263.8
Boulder-Longmont .....	4.1	4.1	4.1	21.1	21.7	21.6	20.7	22.6	21.4
Denver .....	66.9	66.6	66.0	193.2	194.5	192.9	122.6	128.2	125.6
<b>Connecticut</b> .....	146.5	150.4	151.0	369.1	391.8	385.1	196.9	207.8	202.4
Bridgeport-Milford .....	11.1	12.0	12.1	42.1	44.1	43.7	18.8	20.2	19.9
Hartford .....	75.3	78.6	78.9	102.7	107.9	107.6	59.1	61.8	61.5
New Britain .....	4.0	4.4	( <sup>2</sup> )	12.9	13.6	( <sup>2</sup> )	6.4	6.9	( <sup>2</sup> )
New Haven-Meriden .....	14.9	15.5	15.3	65.4	69.5	68.3	30.6	32.2	31.9
Stamford .....	12.7	13.4	13.3	34.8	37.8	36.9	10.4	10.8	10.7
Waterbury .....	4.2	4.1	4.4	19.2	22.0	20.8	12.1	12.6	12.9
<b>Delaware</b> .....	24.9	27.0	27.2	67.6	76.0	75.1	45.8	47.4	47.3
Wilmington .....	22.1	24.1	24.2	59.8	66.5	66.2	36.4	37.9	37.6
<b>District of Columbia</b> .....	36.6	37.5	37.4	219.2	238.1	234.9	262.5	265.7	264.0
Washington MSA .....	120.1	126.5	126.4	626.7	675.9	670.6	548.3	562.2	553.8
<b>Florida</b> .....	348.6	367.1	366.8	1,255.2	1,348.5	1,359.9	727.4	769.7	764.0
Daytona Beach .....	6.3	6.6	6.5	29.4	30.6	30.4	17.7	18.6	18.4
Fort Lauderdale-Hollywood-Pompano Beach .....	38.2	40.5	40.5	123.8	130.2	130.9	56.9	60.1	59.8
Fort Myers-Cape Coral .....	7.9	8.4	8.4	29.2	31.6	32.0	15.4	16.0	16.0
Gainesville .....	4.2	4.3	( <sup>2</sup> )	20.4	21.7	( <sup>2</sup> )	34.9	35.8	( <sup>2</sup> )
Jacksonville .....	36.7	38.1	38.3	95.3	103.0	104.0	57.3	58.7	58.3
Lakeland-Winter Haven .....	8.2	8.4	( <sup>2</sup> )	32.2	34.5	( <sup>2</sup> )	19.1	20.3	( <sup>2</sup> )
Melbourne-Titusville-Palm Bay .....	5.0	5.6	5.6	39.1	42.2	42.3	20.4	21.4	21.3
Miami-Hialeah .....	66.0	67.7	67.7	222.1	225.2	224.7	105.9	112.0	112.6
Orlando .....	31.8	34.3	34.1	142.3	152.7	152.0	53.6	57.0	56.1
Pensacola .....	5.5	5.6	5.6	28.7	30.5	30.4	28.3	29.2	28.9
Sarasota .....	8.3	8.7	8.7	29.3	30.6	30.8	12.0	12.4	12.4
Tallahassee .....	4.7	5.0	4.9	21.0	22.1	22.4	44.6	46.8	45.7
Tampa-St. Petersburg-Clearwater .....	63.7	66.3	65.8	213.8	223.1	223.0	100.0	104.5	104.2
West Palm Beach-Boca Raton-Deerfield Beach .....	27.6	29.5	29.4	93.2	100.3	101.8	38.6	40.8	40.8

See footnotes at end of table

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>
<b>Georgia</b>	2,896.3	2,807.8	2,766.3	8.3	8.4	8.3	145.3	154.8	144.3
Albany	48.5	49.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.6	2.9	( <sup>1</sup> )
Athens	61.6	82.7	83.0	.2	.2	.2	2.4	2.4	2.2
Atlanta	1,333.9	1,388.6	1,370.9	1.4	1.4	1.4	70.8	71.9	68.3
Augusta	153.2	159.0	157.2	.5	.5	.5	9.0	9.8	9.8
Columbus	86.9	93.0	92.1	.1	.1	.1	4.7	5.3	5.1
Macon-Warner Robins	116.0	119.8	118.4	.1	.1	.1	4.7	4.9	4.7
Savannah	100.0	103.8	102.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.6	7.3	6.9
<b>Hawaii</b>	447.7	470.8	483.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	20.5	20.3	20.2
Honolulu	357.1	375.8	389.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	18.3	15.9	15.7
<b>Idaho</b>	318.2	340.0	331.3	2.2	2.7	2.6	11.3	12.8	10.7
Boise City	83.7	88.3	86.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.9	4.3	4.0
<b>Illinois</b>	4,803.2	4,963.8	4,900.5	23.2	23.5	23.1	170.0	194.8	174.9
Aurora-Elgin	130.8	139.1	138.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.3	8.6	6.0
Bloomington-Normal	55.4	56.4	56.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.3	1.6	1.4
Champaign-Urbana-Rantoul	80.7	86.1	82.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.2	2.4	2.2
Chicago	2,959.4	3,068.9	3,027.1	2.3	2.4	2.1	104.6	121.9	111.8
Davenport-Rock Island-Moline	150.7	155.2	154.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.5	4.4	4.2
Decatur	49.7	51.0	49.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.8	1.9	1.7
Joliet	95.3	98.0	97.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.8	5.6	5.1
Kankakee	31.9	33.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.1	1.2	( <sup>1</sup> )
Lake County	176.1	190.4	186.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.7	8.8	8.0
Peoria	131.2	134.0	132.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.5	5.0	4.2
Rockford	124.0	124.2	124.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.5	4.6	4.0
Springfield	95.4	98.1	97.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.4	3.2	2.9
<b>Indiana</b>	2,211.8	2,360.1	2,315.0	8.0	8.5	8.0	83.7	101.0	93.2
Anderson	48.0	48.7	47.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.2	1.4	1.3
Bloomington	48.8	52.9	51.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	2.0	1.8
Elkhart-Goshen	92.8	99.9	98.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.4	2.8	2.8
Evansville	121.8	127.1	125.3	2.2	2.2	2.2	8.7	7.2	6.7
Fort Wayne	178.3	190.1	188.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.9	9.8	9.3
Gary-Hammond	202.4	224.5	221.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.3	11.6	10.8
Indianapolis	577.7	618.8	606.8	.7	.8	.7	26.0	31.0	28.9
Kokomo	43.7	45.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.0	1.3	( <sup>1</sup> )
Lafayette	62.0	65.5	64.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.8	2.8	2.5
Muncie	49.5	51.8	51.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.9	1.8
South Bend-Mishawaka	107.8	115.0	113.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.2	5.2	4.8
Terre Haute	51.7	54.2	53.4	.4	.3	.3	1.6	2.1	2.0
<b>Iowa</b>	1,056.9	1,133.4	1,109.8	1.6	2.3	1.9	27.9	32.8	27.7
Cedar Rapids	82.4	89.0	87.6	.1	.2	.1	2.6	2.9	2.7
Des Moines	196.5	213.3	211.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.1	7.6	6.9
Dubuque	37.1	43.5	42.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.0	1.3	1.1
Iowa City	47.8	52.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.1	1.2	( <sup>1</sup> )
Sioux City	45.2	52.1	51.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.8	1.5
Waterloo-Cedar Falls	54.4	62.8	61.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.3	1.5	1.3
<b>Kansas</b>	968.9	1,020.7	996.1	10.7	12.1	11.7	39.4	43.3	38.2
Lawrence	30.9	32.8	31.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.1	1.4	1.3
Topeka	84.2	88.8	88.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.2	3.8	3.3
Wichita	218.1	230.5	227.0	2.1	2.5	2.5	8.5	9.5	8.3
<b>Kentucky</b>	1,278.8	1,352.0	1,333.1	38.2	38.8	37.3	50.9	81.3	58.7
Lexington-Fayette	166.9	177.3	172.7	.7	.8	.8	8.7	9.4	8.9
Louisville	420.8	449.4	443.2	.5	.4	.4	19.3	24.8	23.4
Owensboro	32.8	34.4	33.7	.8	.8	.7	1.8	2.1	2.0
<b>Louisiana</b>	1,460.8	1,504.3	1,485.2	53.8	55.3	55.3	77.4	80.4	78.8
Alexandria	44.7	48.2	45.5	.2	.2	.2	2.1	2.3	2.1
Baton Rouge	207.9	214.7	211.8	.9	.8	.8	18.1	20.4	19.5
Houma-Thibodaux	50.4	52.9	51.4	5.6	5.8	5.7	1.5	1.4	1.3
Lafayette	80.0	83.0	81.7	10.3	10.5	10.6	3.1	3.2	3.0
Lake Charles	58.8	58.4	( <sup>1</sup> )	1.0	.9	( <sup>1</sup> )	4.5	3.8	( <sup>1</sup> )
Monroe	54.0	54.4	53.1	.4	.4	.3	2.9	2.5	2.3
New Orleans	505.6	512.3	509.9	14.4	14.7	14.8	22.0	21.8	21.7
Shreveport	130.2	133.3	132.2	3.3	3.2	3.2	8.0	7.0	6.7
<b>Maine</b>	474.3	517.9	503.8	.1	.1	.1	26.0	31.7	28.9
Lewiston-Auburn	38.1	40.0	39.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.8	2.3	2.1
Portland	117.0	128.0	123.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.4	9.8	9.3

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Jan 1987	Dec 1987	Jan. 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Georgia</b>	559.1	576.7	569.4	169.7	177.1	173.7	679.4	706.8	690.1
Albany	8.5	8.1	( <sup>2</sup> )	2.2	2.2	( <sup>2</sup> )	12.3	12.6	( <sup>2</sup> )
Athens	14.8	15.5	15.3	1.8	1.8	1.7	12.8	13.0	12.9
Atlanta	185.7	191.4	187.9	110.9	117.5	116.4	373.8	386.2	379.1
Augusta	35.2	36.5	36.4	5.2	5.2	5.2	32.9	34.7	33.6
Columbus	20.0	19.5	20.2	3.5	3.6	3.6	19.8	21.0	20.1
Macon-Warner Robins	18.0	18.5	18.2	5.0	4.9	4.8	26.0	27.3	26.8
Savannah	16.4	17.3	17.1	8.6	9.2	9.2	24.5	25.3	24.9
<b>Hawaii</b>	21.6	22.2	22.2	35.5	37.2	36.6	120.3	127.3	125.1
Honolulu	15.8	16.5	16.5	29.2	30.6	30.1	94.0	100.3	98.2
<b>Idaho</b>	51.0	55.4	55.0	17.2	18.1	17.5	81.7	87.9	84.1
Boise City	10.2	11.7	11.6	5.0	5.2	5.0	22.2	23.5	23.0
<b>Illinois</b>	924.0	936.8	938.1	288.0	301.0	298.9	1,195.1	1,253.3	1,230.6
Aurora-Elgin	35.3	36.6	36.8	3.1	3.1	2.9	37.1	39.6	38.3
Bloomington-Normal	5.0	5.3	5.3	2.7	2.6	2.6	12.7	12.8	12.8
Champaign-Urbana-Rantoul	7.7	7.7	7.8	2.3	2.3	2.3	18.9	19.3	19.2
Chicago	548.7	553.0	550.3	188.6	195.1	192.9	746.5	787.1	769.0
Davenport-Rock Island-Moline	29.3	33.1	33.0	8.1	8.1	8.1	42.1	42.4	42.4
Decatur	13.6	13.0	13.0	4.8	4.9	4.9	11.1	12.4	11.6
Joliet	19.4	19.7	19.7	8.2	8.4	8.3	22.8	23.2	23.1
Kankakee	5.0	4.9	( <sup>2</sup> )	1.4	1.4	( <sup>2</sup> )	8.1	8.4	( <sup>2</sup> )
Lake County	40.7	43.2	43.8	6.6	6.9	6.9	48.8	52.6	51.3
Peoria	30.8	32.1	32.5	6.8	6.8	6.8	33.1	33.3	33.0
Rockford	44.3	41.7	43.5	4.5	4.3	4.3	28.7	29.1	29.0
Springfield	4.0	3.8	3.9	4.7	4.9	4.9	21.4	22.1	22.1
<b>Indiana</b>	598.0	626.7	624.1	112.5	122.4	122.8	522.4	567.1	553.4
Anderson	17.9	16.8	16.5	1.3	1.5	1.5	10.7	11.5	11.2
Bloomington	8.3	9.1	9.1	1.6	1.7	1.7	11.0	11.9	11.4
Elkhart-Goshen	49.8	53.7	53.3	2.7	2.8	2.8	17.2	18.7	18.1
Evansville	30.6	30.5	30.3	6.3	6.6	6.6	31.8	34.2	33.4
Fort Wayne	49.2	51.0	51.0	11.5	12.1	12.0	44.4	48.0	47.3
Gary-Hammond	47.7	56.2	56.2	13.5	14.8	14.6	49.3	53.7	52.4
Indianapolis	106.3	107.0	105.8	34.4	37.6	36.8	148.8	162.5	158.6
Kokomo	19.5	18.9	( <sup>2</sup> )	1.3	1.5	( <sup>2</sup> )	9.1	9.8	( <sup>2</sup> )
Lafayette	11.5	12.0	12.0	1.9	2.0	1.9	12.9	13.4	13.0
Muncie	10.9	10.4	10.6	2.2	2.5	2.5	12.2	13.0	12.7
South Bend-Mishawaka	23.6	24.3	24.0	4.8	5.0	5.0	28.5	30.9	30.0
Terre Haute	10.4	10.3	10.2	2.5	2.8	2.8	13.7	14.8	14.5
<b>Iowa</b>	196.8	220.7	220.1	50.8	53.9	54.0	270.4	289.4	282.4
Cedar Rapids	21.7	23.3	23.3	5.3	6.0	6.2	20.1	21.8	21.3
Des Moines	22.1	25.4	25.4	11.6	12.3	12.4	51.9	57.1	55.7
Dubuque	9.0	12.8	12.9	1.5	1.7	1.6	9.1	9.9	9.6
Iowa City	3.9	4.3	( <sup>2</sup> )	1.0	1.2	( <sup>2</sup> )	9.4	10.3	( <sup>2</sup> )
Sioux City	6.7	10.1	10.1	2.9	3.2	3.1	12.4	13.7	13.3
Waterloo-Cedar Falls	9.0	14.4	14.7	1.6	1.7	1.7	13.7	15.2	14.4
<b>Kansas</b>	168.7	178.6	177.2	60.8	61.6	60.7	244.8	260.0	254.0
Lawrence	4.4	4.5	4.3	1.4	1.3	1.3	6.7	7.4	7.0
Topeka	8.8	8.7	8.7	6.7	6.6	6.5	18.7	19.9	19.9
Wichita	57.2	60.1	59.9	10.5	10.8	10.7	52.0	53.6	52.2
<b>Kentucky</b>	254.8	267.9	267.1	67.0	68.5	67.7	306.5	330.7	323.8
Lexington-Fayette	28.2	28.9	29.1	7.6	8.0	7.9	40.1	43.5	42.3
Louisville	85.7	87.6	86.9	26.4	29.4	28.8	104.2	113.1	110.9
Owensboro	5.5	5.9	5.9	2.1	2.2	2.1	8.5	9.0	8.6
<b>Louisiana</b>	158.8	167.8	165.4	103.0	103.6	103.9	357.5	371.7	364.1
Alexandria	3.4	3.4	3.3	2.1	2.2	2.2	10.9	11.5	11.1
Baton Rouge	18.1	18.7	18.6	10.3	10.1	10.4	50.2	52.2	50.7
Houma-Thibodaux	3.6	4.4	4.2	5.4	5.6	5.5	12.9	13.7	13.3
Lafayette	5.8	6.1	5.9	5.7	5.6	5.6	22.3	22.4	22.4
Lake Charles	9.4	11.1	( <sup>2</sup> )	3.8	3.9	( <sup>2</sup> )	14.0	14.7	( <sup>2</sup> )
Monroe	7.4	7.2	7.2	2.8	2.6	2.5	14.5	14.9	14.1
New Orleans	41.5	42.9	42.8	42.6	43.4	43.5	134.0	136.4	134.3
Shreveport	18.2	17.2	17.1	8.5	8.1	8.1	31.8	33.3	33.0
<b>Maine</b>	103.8	106.6	106.1	19.9	20.3	20.2	113.8	131.3	125.8
Lewiston-Auburn	9.9	10.4	10.4	1.4	1.4	1.4	9.3	9.8	9.7
Portland	16.5	16.4	16.2	5.7	6.0	6.0	35.1	37.8	35.5

See footnotes at end of table



**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Jan. 1987	Dec 1987	Jan. 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Georgia</b>	150.9	156.4	155.5	513.5	543.9	542.1	470.1	483.6	482.9
Albany	2.3	2.4	( <sup>2</sup> )	7.8	8.5	( <sup>2</sup> )	12.7	13.0	( <sup>2</sup> )
Athens	1.9	1.9	1.9	9.1	9.6	9.7	18.7	18.2	19.1
Atlanta	95.3	98.8	98.6	306.4	323.2	321.7	189.6	198.1	197.5
Augusta	5.8	6.1	6.0	31.5	32.4	32.5	33.2	33.7	33.4
Columbus	6.1	6.2	6.2	15.1	16.4	16.4	20.5	20.8	20.5
Macon-Warner Robins	7.2	7.6	7.7	21.0	22.9	22.8	33.9	33.6	33.3
Savannah	4.4	4.5	4.5	23.0	24.0	23.7	15.5	16.3	16.2
<b>Hawaii</b>	33.3	34.3	34.1	122.5	129.9	129.0	94.0	99.4	96.4
Honolulu	27.9	28.7	28.6	94.6	100.1	99.0	79.3	83.7	80.9
<b>Idaho</b>	18.9	18.9	18.8	65.4	68.9	69.2	70.5	75.3	73.4
Boise City	7.5	7.4	7.3	18.3	19.2	19.0	16.6	17.0	17.0
<b>Illinois</b>	350.9	359.9	361.2	1,132.6	1,160.6	1,153.5	719.4	733.9	720.2
Aurora-Elgin	6.5	6.5	6.5	28.5	30.9	30.6	14.7	15.7	15.3
Bloomington-Normal	9.3	9.4	9.5	11.6	11.7	11.7	12.8	13.0	12.7
Champaign-Urbana-Rantoul	3.2	3.3	3.3	15.2	16.1	15.0	31.2	35.0	31.7
Chicago	252.7	260.1	259.8	758.8	789.8	783.3	357.2	359.5	357.6
Davenport-Rock Island-Moline	8.0	8.1	8.1	31.3	31.5	31.7	27.4	27.6	27.4
Decatur	2.7	2.7	2.7	10.3	10.5	10.5	5.4	5.6	5.3
Joliet	3.8	3.8	3.8	19.7	20.0	19.9	16.4	17.0	16.9
Kankakee	1.5	1.5	( <sup>2</sup> )	8.3	8.5	( <sup>2</sup> )	6.5	7.2	( <sup>2</sup> )
Lake County	6.9	6.9	6.9	38.2	40.8	39.8	27.6	30.6	29.6
Peoria	7.0	7.0	7.0	32.8	33.6	33.5	16.2	16.2	15.9
Rockford	5.2	5.4	5.4	25.9	26.6	26.4	11.9	12.5	12.3
Springfield	7.9	7.9	7.9	23.5	23.9	23.8	31.4	32.2	31.9
<b>Indiana</b>	111.4	116.6	115.3	428.8	460.1	449.9	346.8	357.7	349.0
Anderson	1.5	1.6	1.6	9.6	9.9	9.9	5.7	5.9	5.8
Bloomington	1.6	1.8	1.7	7.5	8.0	8.0	17.2	18.3	17.4
Elkhart-Goshen	2.4	2.6	2.6	12.5	13.4	13.5	5.8	5.9	5.8
Evansville	4.9	5.3	5.3	27.4	29.1	29.0	11.7	12.1	11.8
Fort Wayne	11.8	12.2	11.9	35.9	39.0	38.7	17.5	18.1	17.9
Gary-Hammond	7.9	8.4	8.3	44.4	48.2	47.6	30.4	31.7	31.6
Indianapolis	43.8	46.5	46.7	128.6	139.4	138.0	89.1	92.0	91.0
Kokomo	1.4	1.4	( <sup>2</sup> )	6.0	6.5	( <sup>2</sup> )	5.4	6.0	( <sup>2</sup> )
Lafayette	2.9	3.0	3.1	10.8	11.4	11.2	20.2	20.9	20.4
Muncie	1.6	1.7	1.7	9.7	10.6	10.5	11.2	11.6	11.5
South Bend-Mishawaka	6.0	6.3	6.3	29.4	31.6	31.5	11.3	11.7	11.6
Terre Haute	1.9	2.0	2.0	10.6	11.0	10.9	10.5	10.9	10.7
<b>Iowa</b>	63.1	65.4	65.5	237.6	249.9	245.9	208.7	219.0	212.1
Cedar Rapids	4.7	4.8	4.8	17.7	19.4	19.0	10.2	10.6	10.2
Des Moines	25.7	27.9	28.3	49.6	53.1	52.5	29.4	29.7	29.8
Dubuque	1.4	1.4	1.4	11.7	12.5	12.4	3.4	3.8	3.7
Iowa City	1.4	1.5	( <sup>2</sup> )	7.3	7.5	( <sup>2</sup> )	23.5	26.8	( <sup>2</sup> )
Sioux City	2.6	2.6	2.7	12.7	14.3	13.9	6.4	6.4	6.4
Waterloo-Cedar Falls	3.0	2.9	2.8	14.0	14.3	14.2	11.8	12.7	11.9
<b>Kansas</b>	55.1	56.4	56.1	194.3	204.2	201.6	195.1	204.5	198.6
Lawrence	1.1	1.2	1.2	5.5	5.8	5.8	10.7	11.2	10.5
Topeka	6.0	6.3	6.4	19.9	20.8	20.7	20.8	20.8	20.7
Wichita	11.2	11.4	11.3	51.4	55.1	55.0	25.2	27.5	27.1
<b>Kentucky</b>	59.7	61.1	61.1	262.9	278.1	276.3	238.6	245.8	243.1
Lexington-Fayette	8.9	9.3	9.1	39.8	41.4	41.0	32.9	36.2	33.8
Louisville	28.0	28.9	28.9	97.5	103.4	102.5	59.0	61.8	61.4
Owensboro	1.4	1.5	1.5	7.4	7.7	7.8	5.1	5.2	5.1
<b>Louisiana</b>	84.0	84.5	84.4	311.9	325.8	323.9	314.4	315.2	311.4
Alexandria	2.5	2.6	2.6	10.8	11.2	11.3	12.7	12.8	12.7
Baton Rouge	12.1	13.3	13.3	41.8	43.5	43.5	55.4	55.7	54.8
Houma-Thibodaux	2.3	2.3	2.3	8.4	8.8	8.6	10.7	10.9	10.5
Lafayette	4.0	3.8	3.8	16.5	18.3	18.2	12.3	13.1	12.2
Lake Charles	2.7	2.7	( <sup>2</sup> )	10.8	11.3	( <sup>2</sup> )	10.4	10.0	( <sup>2</sup> )
Monroe	4.4	4.6	4.6	11.5	11.4	11.4	10.1	10.8	10.7
New Orleans	33.7	34.1	34.3	130.8	133.9	134.1	86.6	85.1	84.6
Shreveport	7.4	7.4	7.3	30.0	31.7	31.8	25.0	25.4	25.0
<b>Maine</b>	23.9	25.1	25.1	100.7	109.3	108.2	86.1	93.5	89.2
Lewiston-Auburn	2.2	2.2	2.2	9.7	10.0	10.0	3.8	3.9	3.9
Portland	11.6	12.6	12.3	26.5	29.1	29.1	14.2	16.3	14.7

See footnotes at end of table

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-6. Employees on nonagricultural payroll in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	Jan. 1987	Dec. 1987	Jan. 1988 <sup>p</sup>	Jan. 1987	Dec. 1987	Jan. 1988 <sup>p</sup>	Jan. 1987	Dec. 1987	Jan. 1988 <sup>p</sup>
<b>Maryland</b>	1,951.9	2,050.8	2,017.2	1.8	1.9	1.8	137.7	153.1	146.2
Baltimore MSA	1,053.9	1,101.0	1,075.3	3	.3	.3	66.3	72.5	68.6
Baltimore City	446.7	460.1	454.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.7	18.9	18.0
Suburban Maryland-DC	693.9	729.1	709.8	6	7	6	58.7	62.4	59.3
<b>Massachusetts</b>	2,959.1	3,101.9	3,031.4	1.5	1.9	1.7	119.3	142.1	132.4
Boston	1,673.3	1,751.6	1,716.7	7	1.0	.9	61.3	71.7	64.9
Brockton	70.3	73.8	71.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.4	3.8	3.3
Fall River	54.0	56.7	55.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	2.4	2.1
Fitchburg-Leominster	38.7	40.5	39.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.1	2.7	2.2
Lawrence-Haverhill	157.2	163.9	162.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.3	8.3	7.6
Lowell	103.0	107.4	104.7	.2	.2	1	4.6	5.6	5.0
New Bedford	65.5	68.2	66.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.7	3.2	2.9
Pittsfield	41.0	42.6	( <sup>2</sup> )	1	1	( <sup>2</sup> )	1.8	2.4	( <sup>1</sup> )
Springfield	230.6	243.0	239.3	1	1	1	8.3	10.5	9.0
Worcester	191.8	206.1	201.1	1	.1	1	8.3	9.7	9.4
<b>Michigan</b>	3,654.0	3,776.3	3,682.7	8.7	9.5	9.3	105.2	123.3	110.8
Ann Arbor	161.8	172.8	168.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.1	5.7	5.0
Battle Creek	55.7	58.0	56.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.9	1.6
Benton Harbor	61.6	64.4	63.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.2	1.2	1.0
Detroit	1,832.9	1,885.5	1,842.1	7	8	.7	53.0	60.0	54.3
Flint	172.7	172.1	165.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.0	4.1	3.9
Grand Rapids	304.9	321.5	313.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	12.7	14.3	13.2
Jackson	50.1	51.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.0	1.2	( <sup>1</sup> )
Kalamazoo	102.0	107.7	104.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.9	3.1	2.7
Lansing-East Lansing	200.9	208.0	203.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.0	4.8	4.3
Muskegon	55.0	57.1	55.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	2.1	2.0
Saginaw-Bay City-Midland	148.4	157.0	152.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.6	6.7	5.8
<b>Minnesota</b>	1,884.5	1,997.9	1,952.0	4.6	6.1	6.0	64.8	78.6	68.4
Duluth	85.1	89.4	86.9	2.9	4.2	4.3	3.5	3.7	2.6
Minneapolis-St. Paul	1,239.2	1,310.0	1,283.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	44.6	52.2	46.1
Rochester	54.7	57.6	57.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.4	1.8	1.5
St. Cloud	66.3	72.4	70.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.9	4.2	3.9
<b>Mississippi</b>	842.3	864.7	875.5	5.6	6.3	6.3	30.8	34.3	32.7
Jackson	170.4	180.1	176.2	1.0	1.2	1.2	7.5	8.5	8.3
<b>Missouri</b>	2,125.9	2,215.1	2,165.5	5.3	5.3	5.0	91.3	98.4	92.4
Kansas City	718.4	739.9	727.9	.5	.5	.5	34.1	36.8	34.2
St. Joseph	34.9	36.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.2	1.3	( <sup>1</sup> )
St. Louis	1,093.9	1,137.7	1,113.0	3.4	3.5	3.4	53.3	57.3	52.6
Springfield	104.6	110.5	108.8	1	1	1	4.3	5.3	4.7
<b>Montana</b>	265.9	275.3	269.5	4.9	5.7	5.5	6.6	8.3	7.1
<b>Nabaska</b>	642.4	670.2	657.1	1.4	1.6	1.4	20.9	22.7	20.7
Lincoln	107.3	112.7	109.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.6	3.9	3.7
Omaha	293.0	302.9	298.8	.2	2	2	10.7	11.6	10.7
<b>Nevada</b>	472.4	514.4	507.3	6.6	9.0	9.0	26.9	30.1	28.9
Las Vegas	269.9	293.2	290.7	.3	.2	.2	17.1	18.5	18.3
Reno	124.5	135.2	132.7	.8	.9	.9	6.5	7.0	6.5
<b>New Hampshire</b>	494.8	529.0	521.0	5	.7	7	32.6	38.0	35.4
Nashua	89.9	96.2	94.3	1	1	1	4.6	5.4	5.3
Portsmouth-Dover-Rochester, NH-ME	102.8	111.4	108.8	.1	.1	1	5.4	6.2	5.8
<b>New Jersey</b>	3,485.2	3,653.2	3,572.2	2.1	2.3	2.2	149.2	177.5	162.3
Atlantic City	146.9	155.3	153.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.4	10.5	10.0
Bergen-Passaic	652.3	685.1	674.6	1	1	1	28.9	31.7	30.4
Camden	411.8	435.5	427.5	1	1	1	20.8	25.9	25.2
Jersey City	232.7	245.7	239.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.1	7.5	7.1
Middlesex-Somerset-Hunterdon	500.8	527.8	518.6	5	6	6	20.7	23.8	21.9
Monmouth-Ocean	305.5	323.7	318.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	19.2	21.6	20.7
Newark	935.4	971.4	953.3	.7	7	7	34.6	40.5	37.6
Trenton	190.0	199.2	195.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.8	5.3	5.0
Vineland-Millville-Bridgeton	54.0	57.3	( <sup>2</sup> )	.3	.3	( <sup>2</sup> )	1.9	2.3	( <sup>2</sup> )

See footnotes at end of table

**ESTABLISHMENT DATA**  
**STATE AND AREA EMPLOYMENT**  
**NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Maryland</b>	206 8	207 3	206 3	90 2	94 3	93 6	499 7	531 9	517 7
Baltimore MSA	131 7	132 6	131 5	51 3	53 4	53 2	259 3	275 5	265 6
Baltimore City .....	44 8	45 1	44 9	27 3	28 1	28 1	97 4	98 6	97 4
Suburban Maryland-DC .....	34 4	35 6	35 2	26 0	28 8	27 5	189 1	200 4	192 3
<b>Massachusetts</b>	602 6	592 5	589 8	125 8	131 9	128 4	703 5	740 5	711 9
Boston .....	282 8	278 3	277 2	74 3	76 1	74 0	383 4	400 6	391 0
Brockton .....	11 3	11 5	11 3	5 1	5 2	5 0	21 4	23 0	22 2
Fall River .....	17 1	17 0	16 8	1 9	1 8	1 8	13 6	15 4	14 6
Fitchburg-Leominster .....	12 0	11 5	11 5	1 5	1 7	1 7	9 7	10 4	9 8
Lawrence-Haverhill .....	51 6	51 0	51 7	6 6	7 0	6 6	35 3	37 4	36 5
Lowell .....	36 0	36 2	36 2	3 4	3 8	3 6	22 4	23 1	22 1
New Bedford .....	19 9	19 1	19 7	2 6	3 0	2 8	15 9	16 9	16 5
Pittsfield .....	12 4	11 3	( <sup>2</sup> )	1 0	1 1	( <sup>2</sup> )	9 3	10 3	( <sup>2</sup> )
Springfield .....	50 6	51 5	51 3	9 6	9 7	9 8	54 4	58 6	57 3
Worcester .....	45 6	46 9	46 6	8 1	8 9	8 4	47 1	49 7	47 7
<b>Michigan</b>	982 1	961 8	936 2	148 2	150 8	147 8	828 2	893 3	860 2
Ann Arbor .....	4 4	39 8	38 8	4 1	4 6	4 3	26 9	30 5	28 5
Battle Creek .....	14 9	15 2	15 2	1 9	1 8	1 8	10 9	12 0	11 6
Benton Harbor .....	21 4	21 7	21 5	2 3	2 3	2 3	12 0	13 5	12 8
Detroit .....	481 5	463 7	450 6	83 2	86 5	84 8	425 8	458 6	442 4
Flint .....	60 8	53 2	49 5	4 7	4 4	4 4	43 3	46 8	4 5
Grand Rapids .....	94 8	97 6	96 9	11 0	11 2	11 1	77 4	84 8	80 7
Jackson .....	12 9	13 0	( <sup>2</sup> )	4 2	4 0	( <sup>2</sup> )	11 4	12 1	( <sup>2</sup> )
Kalamazoo .....	29 5	30 1	30 0	3 2	3 4	3 4	22 3	24 5	22 9
Lansing-East Lansing .....	37 1	34 8	33 0	5 9	5 7	5 8	40 7	43 7	42 0
Muskegon .....	17 3	17 5	17 3	2 4	2 3	2 3	12 0	12 9	12 2
Saginaw-Bay City-Midland .....	44 4	43 2	42 1	6 9	6 8	6 6	34 8	38 3	36 7
<b>Minnesota</b>	363 8	379 2	376 4	98 0	102 6	100 3	469 0	502 2	485 2
Duluth .....	7 1	7 7	7 7	5 5	5 7	5 6	21 1	22 3	21 4
Minneapolis-St. Paul .....	248 5	257 1	256 3	68 4	72 0	70 7	305 9	328 0	319 1
Rochester .....	10 3	10 8	10 8	1 6	1 7	1 7	11 3	11 8	11 4
St. Cloud .....	11 3	12 3	12 2	3 3	3 4	3 4	20 6	22 2	21 7
<b>Mississippi</b>	221 8	232 6	232 5	40 6	42 3	42 3	179 4	192 1	185 9
Jackson .....	19 7	20 9	20 7	11 9	12 7	12 7	41 2	43 4	42 3
<b>Missouri</b>	415 7	421 3	416 2	139 5	144 3	141 0	518 3	552 9	534 4
Kansas City .....	111 7	111 2	111 4	55 4	56 6	55 0	187 2	196 7	191 2
St. Joseph .....	8 2	8 3	( <sup>2</sup> )	2 3	2 8	( <sup>2</sup> )	8 8	9 4	( <sup>2</sup> )
St. Louis .....	217 5	219 2	215 5	72 2	74 4	73 9	266 5	281 2	272 3
Springfield .....	19 4	21 1	21 0	6 7	7 1	6 9	29 4	31 1	30 5
<b>Montana</b> .....	20 3	21 2	20 6	19 5	19 5	19 0	69 3	73 5	71 6
<b>Nebraska</b>	84 0	90 9	90 3	41 9	43 7	43 5	166 5	173 5	169 6
Lincoln .....	13 0	13 4	13 4	5 8	5 8	5 8	25 0	26 2	25 3
Omaha .....	33 0	35 0	34 8	22 3	23 4	22 9	75 1	78 1	76 5
<b>Nevada</b>	22 1	24 0	23 9	26 7	28 4	27 8	95 8	106 4	103 1
Las Vegas .....	8 1	9 0	8 9	14 8	16 1	15 7	56 5	63 0	61 0
Reno .....	8 4	8 1	8 2	8 8	9 3	9 2	28 0	31 2	30 1
<b>New Hampshire</b>	117 1	121 6	121 8	16 7	17 2	17 1	124 7	136 0	131 5
Nashua .....	35 6	37 4	36 9	2 2	2 1	2 1	21 0	22 2	21 3
Portsmouth-Dover-Rochester,NH-ME .....	20 3	20 7	20 7	2 8	3 0	2 8	26 0	29 3	27 7
<b>New Jersey</b>	674 5	671 3	663 2	232 8	243 0	239 0	839 6	894 9	858 0
Atlantic City .....	8 2	8 5	8 4	6 1	6 0	6 0	28 8	31 0	30 7
Bergen-Passaic .....	158 5	160 3	159 6	28 2	29 1	28 6	188 5	203 1	195 2
Camden .....	72 0	72 2	71 1	18 3	18 1	18 4	112 9	121 7	117 2
Jersey City .....	47 7	48 5	46 3	29 7	31 2	28 8	57 1	62 4	61 2
Middlesex-Somerset-Hunterdon .....	112 6	115 1	114 6	42 3	44 0	44 1	121 8	131 5	127 2
Monmouth-Ocean .....	30 9	30 3	30 2	15 6	16 6	16 2	83 0	90 0	87 9
Newark .....	182 1	181 2	180 1	80 0	81 5	80 3	194 7	203 7	195 1
Trenton .....	31 4	31 4	31 2	6 3	6 7	6 6	30 9	33 0	32 1
Vineland-Milville-Bridgeton .....	15 0	15 0	( <sup>2</sup> )	2 1	2 3	( <sup>2</sup> )	13 6	12 0	( <sup>2</sup> )

See footnotes at end of table

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Maryland</b>	120.2	126.1	125.7	507.2	542.0	536.3	388.3	394.3	389.6
Baltimore MSA	72.6	75.3	74.8	269.8	287.9	280.8	202.7	203.5	200.7
Baltimore City	43.2	44.0	43.6	132.7	140.8	138.3	83.5	84.5	84.3
Suburban Maryland-D.C.	39.5	41.6	41.4	196.8	209.5	207.3	149.0	150.0	146.1
<b>Massachusetts</b>	208.8	220.8	222.8	809.5	864.7	845.8	388.1	407.5	398.6
Boston	144.3	152.4	152.8	529.1	563.9	550.3	197.4	207.6	205.6
Brockton	3.0	3.1	3.1	14.3	15.3	14.9	11.8	11.9	11.7
Fall River	2.9	3.1	3.1	9.9	10.3	10.2	6.7	6.7	6.4
Fitchburg-Leominster	1.7	1.8	1.8	7.2	8.0	8.0	4.5	4.4	4.3
Lawrence-Haverhill	6.0	6.4	6.5	30.5	33.1	32.8	19.9	20.8	20.9
Lowell	4.1	4.3	4.3	19.3	20.5	19.7	13.0	13.7	13.7
New Bedford	2.4	2.5	2.4	12.2	13.1	12.8	9.8	10.4	9.8
Pittsfield	2.0	2.1	( <sup>2</sup> )	9.7	10.2	( <sup>2</sup> )	4.7	5.1	( <sup>2</sup> )
Springfield	15.6	16.3	16.4	54.4	58.4	56.2	37.6	37.7	39.2
Worcester	1.1	1.3	1.4	46.1	51.1	49.4	23.4	25.4	25.1
<b>Michigan</b>	174.5	183.1	182.2	798.6	819.2	813.0	608.6	635.2	623.2
Ann Arbor	4.4	4.7	4.6	30.8	33.9	34.1	51.0	53.5	52.5
Battle Creek	3.8	3.3	3.3	11.8	12.3	12.1	10.8	11.5	11.2
Benton Harbor	2.5	2.6	2.6	14.0	14.3	14.4	8.2	8.6	8.3
Detroit	102.9	107.2	107.7	449.8	461.9	457.3	236.0	246.8	244.3
Flint	5.8	5.9	5.8	30.0	31.4	30.9	24.1	26.3	25.5
Grand Rapids	13.8	13.8	13.8	63.9	67.6	65.9	30.8	31.9	31.3
Jackson	1.8	1.8	( <sup>2</sup> )	9.3	9.5	( <sup>2</sup> )	9.4	10.1	( <sup>2</sup> )
Kalamazoo	4.5	4.8	4.9	22.6	23.4	23.2	17.1	18.2	17.3
Lansing-East Lansing	11.0	12.0	11.9	35.5	37.6	37.0	65.4	69.3	68.9
Muskegon	1.4	1.3	1.3	11.1	11.8	11.4	8.8	9.1	9.1
Saginaw-Bay City-Midland	5.9	6.2	6.1	30.7	33.6	33.1	19.9	22.2	21.7
<b>Minnesota</b>	117.0	121.5	121.2	453.9	485.2	476.6	313.3	322.5	320.0
Duluth	3.0	3.2	3.2	19.8	20.3	20.2	22.1	22.2	22.0
Minneapolis-St. Paul	90.9	95.0	95.0	310.0	329.1	322.0	170.3	176.2	174.3
Rochester	1.5	1.5	1.6	22.7	24.1	24.1	5.9	6.3	6.1
St. Cloud	2.3	2.4	2.4	13.7	14.6	14.2	12.4	13.4	12.8
<b>Mississippi</b>	37.9	38.7	38.6	134.1	140.1	139.4	192.1	198.1	197.8
Jackson	14.0	14.4	14.3	36.5	39.4	39.1	38.7	39.6	39.6
<b>Missouri</b>	131.5	134.0	134.0	481.5	505.8	497.9	342.8	353.1	344.0
Kansas City	57.2	57.7	58.1	163.0	169.6	167.9	109.3	111.0	109.6
St. Joseph	1.8	1.9	( <sup>2</sup> )	6.8	7.0	( <sup>2</sup> )	5.8	6.1	( <sup>2</sup> )
St. Louis	72.6	73.6	73.6	270.9	286.2	283.2	137.5	142.3	138.5
Springfield	4.8	4.7	4.7	26.3	27.0	27.3	13.6	14.1	13.6
<b>Montana</b>	13.0	12.8	12.6	61.7	64.1	63.6	70.6	70.2	69.5
<b>Nebraska</b>	47.3	47.5	47.8	146.5	150.8	148.3	133.9	139.5	135.5
Lincoln	7.9	8.4	8.3	22.2	23.5	23.3	29.8	31.5	29.6
Omaha	28.6	28.4	28.7	78.7	80.7	79.9	44.4	45.5	45.1
<b>Nevada</b>	22.5	24.0	23.7	209.8	225.7	225.8	62.0	66.8	65.1
Las Vegas	13.4	14.7	14.6	128.4	137.5	138.5	31.3	34.2	33.5
Reno	6.9	6.9	6.8	49.7	54.9	54.7	15.4	16.9	16.3
<b>New Hampshire</b>	30.1	32.8	33.7	108.4	116.3	115.1	64.7	66.4	65.7
Nashua	3.6	4.0	4.1	16.3	18.0	17.4	6.5	7.0	7.1
Portsmouth-Dover-Rochester, NH-ME	6.2	6.8	6.8	17.8	19.7	19.6	24.2	25.6	25.3
<b>New Jersey</b>	218.9	230.7	230.9	831.5	882.8	871.3	536.6	550.7	545.3
Atlantic City	6.9	7.1	7.2	63.5	67.9	66.7	23.9	24.2	24.2
Bergen-Passaic	35.9	38.6	38.7	145.8	154.0	154.1	66.4	68.2	67.9
Camden	23.4	25.4	25.8	94.4	99.7	98.6	69.9	72.4	71.1
Jersey City	11.9	12.8	13.0	40.0	42.5	42.2	40.2	40.8	40.9
Middlesex-Somerset-Hunterdon	35.2	35.7	35.9	99.5	105.3	104.5	68.2	71.8	69.8
Monmouth-Ocean	17.2	18.0	17.9	79.7	85.7	83.9	59.7	61.3	61.4
Newark	74.9	77.8	78.4	236.3	250.6	247.1	132.1	135.4	134.0
Trenton	9.2	9.5	9.5	54.0	57.9	56.2	53.6	55.4	55.3
Vineland-Milville-Indigeton	2.9	3.1	( <sup>2</sup> )	9.8	10.7	( <sup>2</sup> )	11.4	11.6	( <sup>2</sup> )

See footnotes at end of table

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees of nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>New Mexico</b>	516.5	536.4	526.2	14.3	15.6	15.4	30.2	30.0	28.1
Albuquerque	224.9	234.7	230.5	2	1	2	15.4	15.3	14.5
Las Cruces	40.0	41.2	40.7	1	1	1	2.1	2.1	2.0
Santa Fe	52.0	54.9	53.8	1	1	1	2.3	2.5	2.3
<b>New York</b>	7,839.3	8,219.5	8,025.8	5.1	5.8	5.3	287.8	338.4	308.6
Albany-Schenectady-Troy	387.8	414.5	404.8	3	3	2	15.6	20.2	17.9
Binghamton	117.6	123.1	120.6	(1)	(1)	(1)	4.3	5.2	4.7
Buffalo	419.2	446.4	431.8	3	4	3	13.3	16.8	14.4
Elmira	36.2	39.9	39.3	(1)	(1)	(1)	1.3	1.5	1.3
Glens Falls	43.7	46.5	(2)	(1)	(1)	(2)	1.7	2.4	(2)
Nassau-Suffolk	1,097.3	1,160.4	1,127.9	2	2	2	52.5	63.6	57.6
New York PMSA	4,031.1	4,188.0	4,102.1	12	12	12	140.0	158.8	149.2
New York City	3,520.0	3,649.3	3,578.7	8	6	6	110.5	123.4	117.2
Niagara Falls	76.8	83.0	79.8	(1)	(1)	(1)	2.4	3.6	3.4
Orange County	97.4	103.8	102.3	(1)	(1)	(1)	4.6	6.0	5.6
Poughkeepsie	113.1	120.1	116.5	(2)	(2)	(2)	5.7	6.3	5.6
Rochester	451.0	472.7	464.2	6	8	7	15.5	19.3	17.4
Rockland County	94.5	99.8	97.6	(2)	(2)	(2)	4.4	5.7	5.1
Syracuse	289.2	308.0	300.7	1	2	2	12.4	16.5	15.1
Utica-Rome	115.9	123.3	120.9	1	2	1	2.8	3.8	3.3
Westchester County	399.3	420.3	407.4	3	3	3	23.8	27.9	25.4
<b>North Carolina</b>	2,779.4	2,930.5	2,884.1	4.8	5.0	5.0	147.9	161.4	152.6
Asheville	74.4	78.8	76.7	1	1	1	3.7	4.2	4.0
Charlotte-Gastonia-Rock Hill	556.7	596.3	587.2	4	4	4	31.6	35.6	34.7
Greensboro-Winston-Salem-High Point	455.2	473.0	465.3	3	3	3	23.7	24.8	24.4
Raleigh-Durham	372.8	390.7	383.4	3	4	4	20.7	21.5	20.3
<b>North Dakota</b>	243.6	254.4	248.7	3.7	4.3	4.3	7.7	9.0	7.6
Bismarck	35.7	36.8	36.2	2	2	2	1.2	1.3	1.2
Fargo-Moorhead	68.6	72.5	71.3	(1)	(1)	(1)	2.5	3.1	2.7
Grand Forks	28.6	30.7	29.2	(1)	(1)	(1)	1.3	1.3	1.1
<b>Ohio</b>	4,447.6	4,676.9	4,567.6	21.4	20.5	19.9	147.5	182.9	163.2
Akron	258.9	271.9	263.9	6	6	6	7.5	8.9	7.8
Canton	151.9	158.9	(2)	1.0	1.1	(2)	4.9	6.8	(2)
Cincinnati	650.1	694.9	678.9	3	5	5	25.5	31.2	28.3
Cleveland	867.1	910.2	890.5	12	11	11	23.7	28.7	25.8
Columbus	642.1	676.4	662.3	9	10	9	23.1	28.2	25.8
Dayton-Springfield	419.2	435.9	426.6	4	4	3	14.0	17.0	15.1
Toledo	271.2	288.6	281.1	2	2	2	9.0	11.4	10.2
Youngstown-Warren	183.9	191.5	187.1	7	6	6	5.5	7.3	6.2
<b>Oklahoma</b>	1,097.7	1,108.3	1,078.7	46.3	46.6	44.5	33.1	32.4	28.8
Enid	21.9	22.0	21.8	1.1	1.1	1.0	6	6	6
Lawton	33.5	34.2	33.3	2	2	2	1.2	1.1	1.0
Oklahoma City	398.8	404.1	392.7	12.0	11.3	11.0	11.5	12.6	11.2
Tulsa	287.7	289.9	284.9	15.2	15.4	15.3	10.3	9.5	8.9
<b>Oregon</b>	1,050.2	1,116.5	1,094.5	1.3	1.3	1.2	29.6	33.8	30.8
Eugene-Springfield	101.0	105.9	104.3	2	1	1	2.5	3.0	2.8
Portland	535.6	571.9	558.7	5	5	5	16.9	19.6	17.9
Salem	89.4	96.0	93.9	1	1	1	2.7	3.1	2.8
<b>Pennsylvania</b>	4,760.4	5,016.5	4,901.5	31.2	30.4	29.6	191.3	223.4	200.8
Allentown-Bethlehem	264.0	273.6	269.1	5	6	5	11.2	13.8	12.9
Altoona	48.3	51.6	50.3	(2)	(2)	(2)	2.0	2.6	2.3
Beaver County	49.7	50.8	49.7	(2)	(2)	(2)	3.8	3.7	3.4
Erie	107.0	112.5	110.5	2	2	2	2.8	3.3	2.8
Harrisburg-Lebanon-Carlisle	283.1	298.5	294.2	3	3	3	11.3	12.2	11.7
Johnstown	75.7	78.4	77.3	3.7	3.6	3.6	2.2	2.7	2.2
Lancaster	171.7	182.4	179.0	3	4	4	9.3	10.8	10.3
Philadelphia PMSA	2,092.6	2,204.0	2,151.7	10	1	10	91.9	108.8	100.5
Philadelphia City	759.9	793.0	775.5	(2)	(2)	(2)	16.5	18.3	15.8
Pittsburgh	828.3	865.0	847.9	5.9	5.8	5.8	35.7	39.7	35.2

See footnotes at end of table



**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>New Mexico</b>	36.5	39.4	39.1	28.7	29.5	28.4	123.9	132.2	127.5
Albuquerque	19.7	20.2	20.1	12.1	12.6	12.5	57.5	61.8	60.1
Las Cruces	3.8	4.1	4.1	1.4	1.3	1.3	7.6	8.9	8.5
Santa Fe	1.6	1.7	1.7	1.1	1.3	1.2	10.1	11.0	10.6
<b>New York</b>	1,211.5	1,224.9	1,208.6	400.1	410.8	403.0	1,658.2	1,763.8	1,681.2
Albany-Schenectady-Troy	48.7	49.3	48.4	16.0	16.7	16.3	83.6	91.2	87.1
Binghamton	37.3	38.6	38.3	4.3	4.5	4.5	26.0	27.0	26.3
Buffalo	75.8	77.5	76.4	20.8	22.1	21.0	105.7	113.0	108.6
Elmira	7.1	8.3	8.5	1.4	1.4	1.4	10.1	11.0	10.5
Glens Falls	10.2	10.5	(?)	1.3	1.3	(?)	10.1	11.4	(?)
Nassau-Suffolk	179.5	176.8	176.0	47.6	49.4	48.7	296.2	319.0	302.6
New York PMSA	453.3	460.4	450.1	238.8	243.7	239.5	752.0	790.5	759.3
New York City	370.0	376.9	367.0	213.5	217.4	213.6	629.2	659.2	634.7
Niagara Falls	24.4	24.0	23.7	3.4	3.9	3.6	17.6	19.6	18.6
Orange County	14.2	14.7	14.5	5.8	6.0	5.9	26.0	28.2	27.8
Poughkeepsie	30.8	30.0	29.7	3.2	3.3	3.3	21.3	25.2	24.1
Rochester	131.8	132.1	131.8	14.4	14.6	14.5	96.7	104.4	100.5
Rockland County	14.9	14.6	14.7	3.9	4.1	4.1	22.6	24.5	23.6
Syracuse	53.0	52.4	52.2	17.5	18.1	17.8	66.3	73.5	72.1
Utica-Rome	23.8	24.3	24.3	4.1	4.6	4.5	25.6	27.8	26.6
Westchester County	66.5	66.9	66.6	20.8	21.6	21.1	95.9	102.6	96.7
<b>North Carolina</b>	640.8	666.7	664.8	135.8	144.9	143.7	622.6	670.0	649.5
Asheville	19.2	19.6	19.4	3.6	3.8	3.7	17.7	19.1	18.5
Charlotte-Gastonia-Rock Hill	151.2	156.4	155.5	47.0	49.5	49.0	133.3	146.0	142.5
Greensboro-Winston-Salem-High Point	152.2	153.5	152.5	26.2	28.0	27.5	100.5	107.5	103.9
Raleigh-Durham	57.2	59.0	58.4	17.3	17.0	16.9	80.2	85.8	82.6
<b>North Dakota</b>	14.9	15.8	15.8	15.9	16.3	16.0	65.2	68.8	66.7
Bismarck	1.8	1.9	1.9	2.6	2.7	2.7	9.5	10.0	9.7
Fargo-Moorhead	4.7	4.7	4.8	4.3	4.7	4.7	20.2	21.5	20.7
Grand Forks	1.5	1.7	1.6	1.6	1.6	1.5	8.0	8.5	8.2
<b>Ohio</b>	1,086.5	1,102.9	1,095.6	201.7	209.6	203.0	1,060.9	1,140.6	1,096.6
Akron	66.7	67.0	66.5	12.8	13.1	12.7	64.1	67.9	65.3
Canton	43.1	43.9	(?)	5.5	5.7	(?)	38.4	40.7	(?)
Cincinnati	142.4	145.6	145.0	34.2	36.1	35.8	164.4	177.1	170.5
Cleveland	199.9	203.3	202.4	40.5	41.6	39.7	209.4	224.1	215.4
Columbus	104.0	102.3	102.3	27.3	28.8	27.8	161.9	175.9	169.8
Dayton-Springfield	103.9	103.2	102.6	15.0	15.4	15.1	94.2	101.3	97.4
Toledo	61.9	62.5	62.2	13.1	14.0	13.4	67.1	72.8	70.4
Youngstown-Warren	49.2	49.4	49.1	7.5	7.6	7.5	46.3	50.0	48.3
<b>Oklahoma</b>	153.8	155.0	154.8	63.1	61.8	61.4	266.5	271.3	262.4
Enid	1.6	1.6	1.6	2.2	2.0	2.0	6.3	6.2	6.3
Landon	3.3	3.3	3.3	1.5	1.2	1.2	8.7	9.0	8.3
Oklahoma City	47.5	47.1	47.0	19.8	19.2	19.0	100.7	102.0	98.3
Tulsa	47.4	47.5	47.2	23.0	23.5	23.5	70.0	71.1	69.4
<b>Oregon</b>	191.8	205.2	203.1	56.8	60.1	58.3	264.2	288.7	280.2
Eugene-Springfield	18.5	19.3	19.2	4.1	4.3	4.1	25.7	27.0	26.5
Portland	90.1	97.2	95.3	33.7	35.7	34.6	140.7	152.0	147.3
Salem	11.5	12.5	11.9	2.8	3.0	2.9	20.3	22.5	21.6
<b>Pennsylvania</b>	1,024.4	1,051.7	1,047.4	240.4	249.7	244.5	1,090.3	1,168.8	1,124.7
Allentown-Bethlehem	77.6	75.5	76.0	13.9	13.8	13.6	58.8	62.2	60.0
Altoona	10.5	11.3	11.2	4.5	4.6	4.6	12.3	13.4	12.8
Beaver County	9.6	9.8	9.5	5.1	5.2	5.1	11.2	11.2	10.8
Erie	34.3	34.8	34.9	3.9	3.9	3.8	22.9	24.7	23.1
Harrisburg-Lebanon-Carlisle	50.5	53.1	52.8	17.7	18.5	18.1	64.1	66.8	67.2
Johnstown	12.5	12.9	13.0	5.1	5.2	5.1	15.6	16.4	15.9
Lancaster	59.0	59.4	59.3	6.8	7.0	6.8	40.9	44.4	42.9
Philadelphia PMSA	371.3	378.0	375.5	96.4	99.6	97.5	489.1	522.6	504.0
Philadelphia City	96.5	96.6	95.1	43.8	45.3	44.9	145.9	155.2	149.2
Pittsburgh	121.5	125.3	125.3	44.1	44.5	43.1	209.6	220.6	213.2

See footnotes at end of table

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>
<b>New Mexico</b>	26.4	27.2	27.1	119.3	122.6	121.3	137.2	139.9	139.3
Albuquerque	14.4	15.1	14.7	61.8	63.9	63.8	43.8	45.7	44.6
Las Cruces	1.5	1.6	1.6	6.1	6.5	6.5	17.4	16.6	16.6
Santa Fe	2.0	2.0	2.0	13.3	14.3	14.1	21.5	22.0	21.8
<b>New York</b>	771.0	802.0	798.8	2,124.0	2,245.3	2,209.3	1,381.5	1,428.4	1,411.0
Albany-Schenectady-Troy	21.6	22.9	22.9	94.6	102.4	101.6	107.3	111.5	110.3
Binghamton	3.9	4.0	4.0	20.8	22.0	21.9	20.9	21.6	20.9
Buffalo	25.3	27.1	26.8	106.1	114.0	110.5	72.0	75.4	73.7
Elmira	1.3	1.4	1.4	8.8	9.8	9.9	6.3	6.4	6.3
Glens Falls	1.9	2.0	(?)	9.5	9.3	(?)	8.9	9.3	(?)
Nassau-Suffolk	72.9	76.8	76.8	271.4	287.9	283.2	177.6	186.8	182.8
New York PMSA	568.8	588.7	584.8	1,223.4	1,277.0	1,257.0	653.6	667.7	661.0
New York City	536.7	554.9	551.0	1,085.9	1,132.4	1,115.0	573.2	564.5	579.5
Niagara Falls	1.8	1.9	1.9	15.0	16.8	15.9	12.1	13.1	12.6
Orange County	4.0	4.0	4.0	21.1	22.0	22.0	21.6	22.8	22.5
Poughkeepsie	4.3	4.5	4.6	23.8	25.9	24.5	23.9	25.0	24.7
Rochester	21.3	21.8	21.8	107.3	112.8	111.6	63.3	66.9	66.0
Rockland County	4.8	5.2	5.3	23.1	24.1	23.9	20.7	21.5	21.0
Syracuse	18.8	19.4	19.4	69.6	75.7	73.0	49.5	52.1	51.0
Utica-Rome	6.4	6.8	6.8	24.6	26.5	26.5	28.4	29.4	28.8
Westchester County	26.6	27.8	27.7	109.4	115.3	112.8	56.0	57.9	56.9
<b>North Carolina</b>	121.4	129.5	129.2	463.6	494.7	488.5	442.4	456.4	450.8
Asheville	2.7	2.6	2.5	15.9	17.5	16.9	11.4	11.9	11.7
Charlotte-Gastonia-Rock Hill	35.2	36.7	36.7	98.4	108.0	106.1	59.7	63.7	62.2
Greensboro-Winston-Salem-High Point	22.0	23.1	23.1	78.4	81.6	80.1	52.0	54.3	53.5
Raleigh-Durham	22.1	23.3	23.3	89.2	96.0	95.7	85.7	87.8	85.8
<b>North Dakota</b>	12.5	12.4	12.2	59.1	61.7	61.3	64.6	66.1	64.8
Bismarck	1.6	1.6	1.6	10.4	10.6	10.6	8.4	8.5	8.3
Fargo-Moorhead	4.3	4.5	4.5	18.4	19.4	19.3	14.2	14.6	14.6
Grand Forks	1.1	1.2	1.1	6.3	6.8	6.8	8.8	9.6	8.9
<b>Ohio</b>	236.6	246.7	245.7	1,003.5	1,064.7	1,047.8	689.5	708.9	695.7
Akron	10.3	10.6	10.6	54.4	58.8	57.2	42.6	45.0	43.3
Canton	6.4	6.5	(?)	34.0	35.4	(?)	18.5	18.9	(?)
Cincinnati	38.9	41.3	41.0	157.5	173.3	169.7	86.9	89.8	87.9
Cleveland	53.0	55.1	55.2	223.9	237.3	233.6	115.4	119.0	117.3
Columbus	55.7	58.3	58.1	148.8	158.3	155.8	120.4	123.5	121.9
Dayton-Springfield	17.3	17.8	17.7	100.5	106.3	105.0	74.0	74.5	73.4
Toledo	11.0	11.5	11.3	67.2	72.5	71.1	41.8	43.6	42.4
Youngstown-Warren	8.1	8.2	8.1	42.3	43.8	43.4	24.3	24.6	24.0
<b>Oklahoma</b>	59.8	58.0	57.3	225.2	231.6	225.5	247.9	251.6	244.0
Enid	1.0	1.0	1.0	5.4	5.7	5.7	3.7	3.7	3.6
Lawton	1.6	1.5	1.5	5.4	5.9	5.8	11.6	12.0	12.0
Oklahoma City	25.0	24.3	23.9	86.2	90.6	88.6	96.1	97.0	93.7
Tulsa	17.1	17.3	16.9	68.6	70.4	68.3	38.1	35.2	35.4
<b>Oregon</b>	70.1	71.9	71.6	233.0	245.9	241.2	203.3	209.6	208.1
Eugene-Springfield	4.7	4.6	4.7	22.8	24.0	23.8	22.5	23.6	23.1
Portland	45.7	47.4	47.1	131.3	140.2	137.3	76.7	79.3	78.7
Salem	5.4	5.5	5.5	18.1	19.7	19.1	28.5	29.6	30.0
<b>Pennsylvania</b>	285.6	292.0	291.4	1,225.4	1,299.6	1,279.1	671.8	700.9	684.0
Allentown-Bethlehem	11.1	11.5	11.6	61.6	63.2	64.8	29.3	30.0	29.7
Altoona	1.4	1.6	1.6	10.2	10.8	10.7	7.1	7.3	7.1
Beaver County	1.7	1.8	1.8	10.7	11.3	11.2	7.6	7.8	7.9
Erie	5.2	5.4	5.3	24.5	26.4	26.7	13.2	13.8	13.7
Harrisburg-Lebanon-Carlisle	16.5	17.4	17.4	58.5	61.1	60.5	64.2	67.1	66.2
Johnstown	4.7	4.7	4.8	19.3	20.1	20.1	12.6	12.8	12.6
Lancaster	6.5	6.8	6.9	34.2	37.1	36.7	14.7	16.2	15.7
Philadelphia PMSA	159.8	162.9	163.6	587.7	625.9	610.2	295.4	305.1	299.4
Philadelphia City	72.5	73.7	72.7	245.0	258.4	253.9	139.7	145.5	143.9
Pittsburgh	53.0	53.4	53.3	256.7	269.7	269.3	101.8	106.0	102.7

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Pennsylvania—Continued</b>									
Reading ..	144.2	151.5	148.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.7	6.7	6.3
Scranton-Wilkes-Barre ..	279.7	293.6	289.2	0.8	0.6	0.6	9.5	11.7	9.9
Sharon ..	38.9	41.5	( <sup>1</sup> )	2	2	( <sup>1</sup> )	.9	1.0	( <sup>1</sup> )
State College ..	49.8	53.8	( <sup>1</sup> )	.2	1	( <sup>1</sup> )	1.8	2.1	( <sup>1</sup> )
Williamsport ..	47.2	52.1	51.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.6	1.8	1.7
York ..	164.4	173.7	171.9	4	.4	4	8.5	10.2	9.4
<b>Rhode Island</b>	440.3	458.3	446.7	.1	1	1	16.7	19.9	17.8
Pawtucket-Woonsocket-Attleboro ..	129.3	134.4	130.5	1	1	1	4.4	5.0	4.7
Providence ..	310.2	325.2	316.7	1	1	1	12.3	14.8	13.2
<b>South Carolina</b>	1,345.1	1,422.1	1,396.4	1.6	1.6	1.6	84.5	86.7	82.9
Charleston ..	179.3	189.7	189.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	12.9	13.5	13.3
Columbia ..	218.6	227.9	227.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	12.9	13.5	13.3
Greenville-Spartanburg ..	299.6	312.9	309.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	20.2	21.7	21.1
<b>South Dakota</b>	246.3	256.3	249.6	2.4	2.4	2.4	7.7	9.2	7.8
Rapid City ..	32.8	34.5	( <sup>1</sup> )	2	2	( <sup>1</sup> )	1.9	2.0	( <sup>1</sup> )
Sioux Falls ..	62.3	64.7	63.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.0	2.6	2.3
<b>Tennessee</b>	1,937.5	2,056.7	2,025.4	6.6	6.6	6.3	86.7	101.5	92.5
Chattanooga ..	185.3	191.4	188.3	7	8	7	7.5	8.6	8.0
Johnson City-Kingsport-Bristol ..	155.9	165.4	160.8	3	3	3	5.5	7.5	6.3
Knoxville ..	242.2	249.5	245.8	1.9	1.9	1.9	11.3	12.0	10.5
Memphis ..	405.4	432.1	427.2	1	.1	1	17.7	20.6	19.2
Nashville ..	464.9	470.1	461.1	6	7	6	27.0	26.8	25.2
<b>Texas</b>	6,440.6	6,580.8	6,517.7	181.4	184.7	182.5	350.6	337.2	324.3
Abilene ..	48.8	49.1	49.1	2.2	2.0	2.0	2.2	2.0	2.0
Amarillo ..	77.1	78.7	78.3	1.4	1.3	1.3	3.4	3.7	3.7
Austin ..	354.7	354.0	349.9	8	8	8	18.4	16.4	16.2
Beaumont-Port Arthur ..	128.3	129.1	127.1	1.5	1.5	1.4	8.1	7.4	7.3
Brazoria ..	55.3	57.8	57.1	1.7	1.9	1.9	5.3	5.9	5.7
Brownsville-Harlingen ..	64.5	66.4	65.9	1	1	.1	2.4	2.1	2.1
Bryan-College Station ..	45.7	48.6	45.4	6	7	7	2.0	2.2	2.1
Corpus Christi ..	124.1	124.5	124.1	4.7	3.9	3.9	7.8	6.3	6.1
Dallas ..	1,319.9	1,342.1	1,328.3	19.5	18.4	18.3	66.9	57.5	54.5
El Paso ..	183.6	187.6	187.2	2	1	1	9.8	9.4	9.0
Ft. Worth-Arlington ..	508.5	518.9	512.7	3.6	3.6	3.5	25.8	21.4	20.3
Galveston-Texas City ..	70.5	70.2	69.3	5	6	5	4.7	3.3	3.2
Houston ..	1,361.5	1,401.3	1,386.4	62.8	63.2	62.9	84.4	81.4	79.7
Killeen-Temple ..	68.5	70.1	69.8	1	.1	1	3.7	3.4	3.4
Laredo ..	34.7	36.0	36.3	1.6	2.1	2.1	1.3	1.3	1.3
Longview-Marshall ..	64.0	65.1	64.6	3.5	3.6	3.5	2.9	3.1	3.0
Lubbock ..	89.6	92.9	90.8	5	4	4	3.4	3.2	3.0
McAllen-Edinburg-Mission ..	89.5	91.9	93.1	9	9	9	3.9	3.9	3.9
Midland ..	43.2	44.4	43.4	9.6	10.1	9.9	1.3	1.1	1.2
Odessa ..	41.1	43.9	( <sup>1</sup> )	5.7	6.3	( <sup>1</sup> )	2.2	2.2	( <sup>1</sup> )
San Angelo ..	36.0	37.0	36.1	5	5	4	1.7	1.5	1.5
San Antonio ..	495.9	507.0	503.6	2.7	2.6	2.6	30.4	29.7	28.9
Sherman-Denison ..	37.1	38.0	37.7	1	1	1	1.6	1.6	1.5
Texarkana ..	45.2	46.0	45.3	.1	.1	1	1.8	2.2	2.0
Tyler ..	60.4	61.5	( <sup>1</sup> )	1.9	1.9	( <sup>1</sup> )	2.6	2.3	( <sup>1</sup> )
Victoria ..	26.7	27.5	( <sup>1</sup> )	1.6	1.5	( <sup>1</sup> )	1.7	1.7	( <sup>1</sup> )
Waco ..	76.9	78.2	77.1	1	1	1	3.6	3.3	3.4
Wichita Falls ..	49.4	50.3	50.2	1.8	1.9	1.9	1.8	1.7	1.7
<b>Utah</b>	625.3	652.9	636.0	7.7	3.5	8.2	25.0	25.3	20.5
Provo-Orem ..	72.3	79.4	77.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.3	2.5	2.0
Salt Lake City-Ogden ..	436.8	456.5	446.4	2.3	2.7	2.7	18.1	18.2	16.1
<b>Vermont</b>	237.9	252.3	249.6	4	5	4	13.8	17.6	17.1
Barre-Montpelier ..	32.5	34.1	34.2	1	2	.1	1.8	2.0	1.9
Burlington ..	71.2	76.8	75.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.0	5.1	5.0

See footnotes at end of table.

**ESTABLISHMENT DATA**  
**STATE AND AREA EMPLOYMENT**  
**NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Pennsylvania—Continued</b>									
Reading .....	48.2	49.0	49.2	6.5	6.8	6.8	31.9	34.0	33.1
Scranton-Wilkes-Barre ..	71.2	71.3	71.0	14.9	15.8	15.5	63.9	69.0	67.5
Sharon .....	9.0	9.3	( <sup>2</sup> )	1.6	1.8	( <sup>2</sup> )	10.1	10.7	( <sup>2</sup> )
State College .....	7.2	7.3	( <sup>2</sup> )	1.2	1.3	( <sup>2</sup> )	9.8	10.4	( <sup>2</sup> )
Williamsport .....	14.9	16.9	16.7	1.8	1.9	1.8	10.7	12.0	11.8
York .....	57.6	60.2	60.4	6.9	7.5	7.5	39.3	41.9	40.9
<b>Rhode Island</b> .....	115.9	116.6	114.0	14.9	15.7	15.5	100.4	107.0	103.1
Pawtucket-Woonsocket-Attleboro ..	53.4	53.8	52.7	3.4	3.5	3.5	31.1	33.4	31.8
Providence .....	73.2	72.8	71.2	11.5	12.2	12.1	66.8	73.0	70.2
<b>South Carolina</b> .....	365.4	378.5	376.0	56.9	60.6	59.6	289.7	325.3	315.6
Charleston .....	19.0	19.7	19.8	8.9	9.9	9.9	43.6	47.7	47.4
Columbia .....	28.6	29.1	29.3	10.0	10.3	10.3	48.1	50.4	50.2
Greenville-Spartanburg .....	98.4	101.1	100.7	10.8	11.4	11.5	67.9	73.4	71.5
<b>South Dakota</b> .....	27.9	29.8	29.4	12.3	12.4	12.1	63.9	67.3	65.2
Rapid City .....	3.1	3.2	( <sup>2</sup> )	1.8	1.8	( <sup>2</sup> )	9.2	9.8	( <sup>2</sup> )
Sioux Falls .....	8.2	8.7	8.5	4.5	4.6	4.5	17.0	17.5	17.2
<b>Tennessee</b> .....	486.4	501.7	498.4	98.9	105.0	104.5	456.1	489.8	476.4
Chattanooga .....	45.4	46.5	45.8	8.6	8.3	8.3	42.6	45.0	43.2
Johnson City-Kingsport-Bristol ..	53.3	53.7	53.5	6.0	6.1	6.0	34.7	37.7	35.8
Knoxville .....	50.8	50.9	50.8	9.1	10.0	10.0	60.0	62.4	61.4
Memphis .....	50.7	52.3	51.7	37.5	39.6	39.2	112.2	121.9	120.4
Nashville .....	89.1	88.2	87.3	22.9	24.1	24.2	113.9	116.6	115.3
<b>Texas</b> .....	914.9	943.3	940.7	377.6	388.4	383.2	1,640.0	1,667.1	1,637.6
Arlene .....	4.6	4.6	4.6	2.5	2.5	2.4	13.5	13.7	13.6
Amarillo .....	9.8	9.8	9.8	5.7	5.7	5.7	22.5	23.3	22.8
Austin .....	39.6	39.7	39.3	11.0	10.7	10.7	78.0	80.4	78.2
Beaumont-Port Arthur .....	24.7	24.8	24.8	10.1	9.8	9.7	31.3	32.2	31.2
Brazoria .....	15.3	15.5	15.4	2.2	2.3	2.3	10.9	11.2	11.0
Brownsville-Harlingen .....	9.7	10.1	10.1	3.0	3.1	3.0	17.1	17.6	17.6
Bryan-College Station .....	3.0	3.2	3.1	1.6	1.6	1.6	10.0	9.7	9.5
Corpus Christi .....	11.7	11.2	11.2	7.1	6.9	6.9	31.4	32.3	32.2
Dallas .....	218.9	222.8	221.5	87.6	90.1	89.8	350.3	353.4	347.9
El Paso .....	35.1	37.0	37.6	10.1	10.3	10.2	45.8	47.5	46.8
Ft. Worth-Arlington .....	113.1	117.4	116.1	28.4	30.4	30.2	135.8	139.1	135.9
Galveston-Texas City .....	8.8	8.5	8.4	5.8	5.0	4.8	13.4	14.1	13.8
Houston .....	142.8	149.0	148.8	96.9	97.9	97.2	350.3	361.0	353.0
Killeen-Temple .....	8.3	7.9	7.9	2.6	2.7	2.7	16.3	16.4	16.3
Laredo .....	1.7	1.7	1.8	4.2	4.6	4.6	10.2	10.4	10.4
Longview-Marshall .....	14.7	15.7	15.7	3.1	3.1	3.0	16.7	16.8	16.7
Lubbock .....	7.2	7.2	7.3	4.9	5.1	5.0	26.3	27.9	27.2
McAllen-Edinburg-Mission .....	12.8	12.7	13.7	3.0	2.8	2.8	27.1	27.5	27.6
Midland .....	2.9	2.9	2.7	2.1	2.1	2.1	10.2	10.6	10.3
Odessa .....	3.5	3.7	( <sup>2</sup> )	2.0	2.2	( <sup>2</sup> )	12.0	12.9	( <sup>2</sup> )
San Angelo .....	5.6	5.7	5.6	3.2	3.2	3.2	9.2	9.9	9.5
San Antonio .....	46.5	46.6	46.3	18.2	18.1	18.1	127.5	133.8	132.4
Sherman-Denison .....	11.0	11.0	11.0	2.1	2.0	2.0	8.2	8.4	8.3
Texarkana .....	7.4	7.4	7.3	1.9	1.7	1.7	10.7	10.9	10.4
Tyler .....	10.8	10.8	( <sup>2</sup> )	2.6	2.8	( <sup>2</sup> )	16.6	16.7	( <sup>2</sup> )
Victoria .....	2.7	3.0	( <sup>2</sup> )	1.4	1.5	( <sup>2</sup> )	8.0	8.0	( <sup>2</sup> )
Waco .....	14.5	14.6	14.7	3.4	3.3	3.3	18.9	19.7	19.0
Wichita Falls .....	8.3	8.4	8.4	2.6	2.6	2.6	12.0	12.4	12.2
<b>Utah</b> .....	88.7	95.8	93.9	36.9	38.4	37.4	150.4	157.8	149.7
Provo-Orem .....	10.0	12.2	12.3	2.6	3.1	3.0	15.2	17.3	16.0
Salt Lake City-Ogden .....	60.5	62.6	61.6	28.4	29.3	29.0	110.7	117.4	113.1
<b>Vermont</b> .....	48.7	50.2	49.2	9.8	10.4	10.4	54.4	59.0	57.6
Barre-Montpelier .....	4.2	4.7	4.5	8	9	9	7.0	7.4	7.3
Burlington .....	16.3	16.8	16.7	2.8	3.0	2.9	16.5	17.9	17.4

See footnotes at end of table

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan. 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Jan. 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Pennsylvania—Continued</b>									
Reading .....	7.4	7.6	7.6	28.1	30.1	29.5	16.4	17.3	16.3
Scranton-Wilkes-Barre .....	12.0	12.8	12.9	66.6	70.6	70.6	40.8	41.8	41.2
Sharon .....	1.3	1.3	(?)	10.7	11.5	(?)	5.1	5.1	(?)
State College .....	1.6	1.7	(?)	8.9	9.5	(?)	19.1	21.4	(?)
Williamsport .....	2.2	2.3	2.3	9.4	10.1	10.0	6.6	7.1	7.2
York .....	4.7	5.0	5.0	29.1	30.3	30.3	17.9	18.2	18.0
<b>Rhode Island</b>	25.0	25.5	25.4	109.1	114.3	111.9	58.2	59.2	58.9
Pawtucket-Woonsocket-Attleboro .....	3.6	3.6	3.6	23.4	24.8	24.0	9.9	10.2	10.1
Providence .....	21.0	21.4	21.4	79.5	85.7	83.6	43.8	45.2	44.9
<b>South Carolina</b>	63.1	64.1	63.8	225.8	243.1	240.9	258.1	262.2	256.0
Charleston .....	7.9	8.3	8.3	38.1	40.1	40.3	48.8	50.4	50.1
Columbia .....	17.6	18.0	17.9	41.3	43.7	43.9	59.8	62.5	62.3
Greenville-Spartanburg .....	11.8	11.9	12.0	49.0	53.7	53.6	41.3	39.4	38.5
<b>South Dakota</b>	14.2	14.2	14.1	59.2	60.9	59.8	58.8	60.1	58.8
Rapid City .....	1.7	1.7	(?)	8.2	8.9	(?)	6.7	7.0	(?)
Sioux Falls .....	6.1	6.0	6.0	17.0	17.9	17.6	7.3	7.4	7.2
<b>Tennessee</b>	98.3	102.5	101.2	384.7	413.8	412.8	319.9	335.9	333.3
Chattanooga .....	11.6	11.7	11.8	35.9	36.5	36.9	33.0	33.9	33.6
Johnson City-Kingsport-Bristol .....	5.2	5.4	5.4	27.4	30.1	29.7	23.5	24.7	23.8
Knoxville .....	9.1	9.6	9.6	48.8	51.4	50.1	51.3	51.2	51.5
Memphis .....	23.6	24.7	25.0	93.7	99.3	97.9	69.9	73.6	73.7
Nashville .....	32.6	33.4	33.1	112.4	112.2	108.4	66.5	68.3	67.0
<b>Texas</b>	442.3	439.5	438.8	1,390.8	1,450.1	1,449.5	1,143.0	1,170.5	1,161.1
Abilene .....	2.6	2.7	2.7	12.9	13.1	13.1	8.3	8.5	8.7
Amarillo .....	4.6	4.4	4.5	15.9	16.2	16.2	13.8	14.3	14.3
Austin .....	25.2	24.8	24.7	83.5	84.0	83.1	98.2	97.2	96.9
Beaumont-Port Arthur .....	5.2	5.3	5.3	27.6	27.9	27.3	19.8	20.2	20.1
Brazoria .....	1.9	2.0	2.0	7.4	8.0	7.9	10.6	11.0	10.9
Brownsville-Harlingen .....	3.3	3.6	3.5	12.8	13.8	13.5	16.1	16.1	16.1
Bryan-College Station .....	1.8	1.7	1.7	8.0	8.5	8.3	18.7	21.0	18.4
Corpus Christi .....	6.7	6.9	6.8	27.5	29.0	29.0	27.2	28.0	28.0
Dallas .....	132.6	131.4	131.0	296.2	316.9	314.7	147.9	151.6	150.6
El Paso .....	9.4	9.6	9.5	33.6	34.7	35.0	39.8	39.0	39.0
Ft. Worth-Arlington .....	27.7	27.6	27.3	109.2	112.0	111.8	64.9	67.4	67.6
Galveston-Texas City .....	4.2	4.1	4.1	12.5	13.9	13.7	20.6	20.7	20.8
Houston .....	101.4	98.3	97.2	337.3	361.9	360.3	185.6	188.6	187.3
Killeen-Temple .....	2.9	2.9	2.9	14.3	15.0	15.0	20.3	21.7	21.5
Laredo .....	1.6	1.6	1.6	5.8	5.8	6.0	8.3	8.5	8.5
Longview-Marshall .....	3.4	2.7	2.7	11.3	11.6	11.5	8.4	8.5	8.5
Lubbock .....	5.3	5.2	5.2	21.1	21.9	21.5	20.9	22.0	21.2
McAllen-Edinburg-Mission .....	3.8	3.8	3.8	14.0	14.7	14.7	24.0	25.6	25.7
Midland .....	2.7	2.5	2.5	8.3	8.6	8.4	6.1	6.5	6.3
Odessa .....	1.6	1.7	(?)	6.7	7.2	(?)	7.4	7.7	(?)
San Angelo .....	1.8	1.8	1.8	7.4	7.7	7.7	6.8	6.7	6.4
San Antonio .....	39.1	39.7	39.8	117.0	120.5	120.5	114.5	116.0	115.0
Sherman-Denison .....	1.6	1.7	1.8	7.4	8.9	8.7	5.1	4.3	4.3
Texarkana .....	1.8	1.9	1.9	9.0	9.3	9.4	12.5	12.5	12.5
Tyler .....	3.7	3.7	(?)	13.4	14.3	(?)	8.8	9.0	(?)
Victoria .....	1.5	1.5	(?)	5.4	5.7	(?)	4.4	4.6	(?)
Waco .....	4.8	4.6	4.6	19.4	20.0	19.8	12.2	12.6	12.2
Wichita Falls .....	2.4	2.3	2.3	11.1	11.5	11.5	9.4	9.5	9.6
<b>Utah</b>	33.2	33.8	33.5	141.2	151.0	151.2	142.2	142.3	141.8
Provo-Orem .....	2.3	2.4	2.3	26.6	28.4	28.2	13.3	13.5	13.7
Salt Lake City-Ogden .....	27.1	28.0	27.6	95.6	103.6	102.4	94.1	94.7	93.9
<b>Vermont</b>	11.6	12.1	12.0	61.0	61.5	64.1	38.2	41.0	38.8
Barre-Montpelier .....	3.0	3.0	3.0	7.5	7.6	8.2	8.1	8.3	8.3
Burlington .....	3.5	3.6	3.7	17.3	18.2	18.7	10.8	12.2	10.9

See footnotes at end of table.



**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Virginia</b>	2,588.4	2,744.7	2,701.1	15.9	15.8	15.7	168.6	181.1	174.4
Bristol .....	30.5	32.2	31.9	1	1	1	8	10	9
Charlottesville .....	62.5	68.6	67.1	1	1	1	3.3	3.6	3.4
Danville .....	39.2	40.8	40.4	.1	1	1	1.4	1.8	1.7
Lynchburg .....	71.2	73.1	71.8	1	1	1	3.0	3.6	3.2
Norfolk-Virginia Beach-Newport News .....	532.9	559.3	547.8	.1	1	1	37.7	38.9	36.7
Northern Virginia .....	679.6	731.4	723.0	5	5	5	48.3	53.6	51.3
Richmond-Petersburg .....	425.0	448.6	442.9	4	5	5	25.8	30.1	28.6
Roanoke .....	117.4	121.0	119.2	.1	.2	.2	6.7	7.6	6.9
<b>Washington</b>	1,768.8	1,880.4	1,845.3	2.7	3.1	3.0	77.5	86.7	80.9
Seattle .....	898.0	961.7	950.3	5	.5	5	43.0	47.5	46.8
<b>West Virginia</b>	584.7	607.3	591.8	37.6	36.1	34.7	19.4	22.6	19.0
Charleston .....	104.4	107.1	104.7	2.3	2.1	2.1	3.5	3.9	3.2
Huntington-Ashland .....	100.2	103.9	101.2	1.1	1.3	1.3	3.5	4.0	3.4
Parkersburg-Manetta .....	57.2	60.3	58.9	.6	.6	.6	2.3	2.7	2.3
Wheeling .....	58.1	58.9	57.8	2.2	2.3	2.3	1.5	2.0	1.6
<b>Wisconsin</b>	2,003.8	2,121.4	2,073.8	1.4	1.9	1.5	58.8	68.9	63.1
Appleton-Oshkosh-Neenah .....	137.5	147.2	143.8	(1)	(1)	(1)	5.2	6.6	6.4
Eau Claire .....	52.4	55.6	53.8	(1)	(1)	(1)	1.3	1.3	1.2
Green Bay .....	90.4	96.6	94.4	(1)	(1)	(1)	3.1	3.1	2.7
Janesville-Beloit .....	52.8	55.9	55.0	(1)	(1)	(1)	1.3	1.3	1.2
Kenosha .....	38.1	42.8	42.1	(1)	(1)	(1)	1.2	.9	.8
La Crosse .....	49.0	53.8	51.7	(1)	(1)	(1)	1.2	1.4	1.3
Madison .....	191.0	203.5	198.1	(1)	(1)	(1)	5.9	7.5	7.3
Milwaukee .....	678.3	712.5	699.8	(1)	(1)	(1)	20.1	21.8	20.3
Racine .....	68.5	71.5	70.2	(1)	(1)	(1)	1.7	1.9	1.8
Sheboygan .....	45.6	47.1	(?)	(1)	(1)	(?)	1.4	1.4	(?)
Wausau .....	43.4	46.6	45.7	(1)	(1)	(1)	1.3	1.5	1.3
<b>Wyoming</b>	176.3	177.2	173.0	17.1	17.8	17.4	8.8	8.2	7.1
<b>Puerto Rico</b>	736.2	777.5	763.8	8	8	8	30.7	35.7	35.0
Caguas .....	47.8	51.0	50.3	(1)	(1)	(1)	(1)	(1)	(1)
Mayaguez .....	54.1	56.6	55.5	(1)	(1)	(1)	(1)	(1)	(1)
Ponce .....	47.8	50.7	49.8	1	2	2	2.4	3.1	3.2
San Juan .....	454.1	480.9	472.9	5	4	4	23.2	26.5	26.0
<b>Virgin Islands</b>	38.8	40.2	39.6	(1)	(1)	(1)	2.0	2.0	2.0

See footnotes at end of table

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Virginia</b>	423.3	430.6	428.6	138.2	145.3	143.0	588.2	643.6	623.8
Bristol	10.1	10.4	10.6	1.1	1.1	1.1	7.7	8.4	8.2
Charlottesville	8.6	8.9	8.9	2.2	2.3	2.4	12.7	14.1	13.8
Danville	16.7	16.8	16.7	1.0	1.1	1.0	8.0	8.7	8.6
Lynchburg	24.1	23.4	23.3	2.8	2.9	2.8	14.2	15.1	14.7
Norfolk-Virginia Beach-Newport News	66.2	68.6	68.2	25.3	25.9	25.2	130.7	139.6	133.1
Northern Virginia	35.1	35.3	35.1	4.9	50.8	50.4	156.2	169.0	163.8
Richmond-Petersburg	62.3	62.8	62.5	22.3	23.6	23.1	105.0	110.5	108.3
Roanoke	20.0	19.7	19.6	8.9	8.8	8.7	31.8	33.5	32.5
<b>Washington</b>	304.3	323.3	320.5	94.5	100.4	100.1	432.6	469.5	450.7
Seattle	176.5	189.4	189.4	56.6	59.9	59.3	220.0	239.8	232.7
<b>West Virginia</b>	84.5	85.8	85.6	35.8	36.3	36.5	135.0	145.8	140.5
Charleston	11.4	11.0	10.9	8.3	8.6	8.6	27.4	29.0	27.9
Huntington-Ashland	19.1	19.3	19.2	7.6	7.7	7.7	25.9	27.5	26.4
Parkersburg-Manetta	13.5	13.9	13.9	2.0	2.1	2.1	14.2	15.0	14.4
Wheeling	6.4	7.0	7.1	3.1	3.3	3.2	15.3	16.3	16.0
<b>Wisconsin</b>	508.3	533.5	532.3	91.1	96.8	93.9	472.6	513.3	492.7
Appleton-Oshkosh-Neenah	48.2	50.8	50.6	5.0	5.4	5.2	29.8	26.6	30.6
Eau Claire	9.9	10.0	9.7	3.2	3.5	3.6	15.0	16.7	16.0
Green Bay	23.7	24.8	24.7	6.1	6.4	6.2	24.6	26.0	25.3
Janesville-Beloit	17.1	17.9	17.9	2.3	2.2	2.4	12.9	13.7	13.1
Kenosha	11.4	15.2	15.0	1.3	1.4	1.3	8.5	9.0	8.8
La Crosse	10.7	11.3	11.1	2.4	2.5	2.4	13.6	14.8	14.2
Madison	21.7	23.1	22.9	6.7	7.2	7.0	42.5	47.9	44.6
Milwaukee	167.0	171.9	172.6	34.4	35.9	34.9	154.7	167.1	161.5
Racine	24.4	24.7	24.7	2.2	2.4	2.2	16.0	17.5	16.9
Sheboygan	19.0	19.6	( <sup>2</sup> )	1.4	1.5	( <sup>2</sup> )	8.6	9.2	( <sup>2</sup> )
Wausau	11.6	12.9	12.6	2.6	2.8	2.8	10.7	11.6	11.3
<b>Wyoming</b>	7.6	8.3	8.0	13.1	12.7	12.8	39.6	40.3	38.6
<b>Puerto Rico</b>	147.2	154.7	152.9	16.6	15.4	15.3	133.3	147.6	139.1
Caguas	14.7	15.4	15.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.1	10.0	9.9
Mayaguez	20.0	20.6	20.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.6	8.3	7.9
Ponce	9.3	9.6	9.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.9	8.6	7.9
San Juan	63.4	65.9	65.2	13.1	12.6	12.6	92.0	103.1	97.6
<b>Virgin Islands</b>	1.9	2.2	2.1	2.6	2.7	2.6	9.2	9.7	9.5

See footnotes at end of table

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonagricultural payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>
<b>Virginia</b> .....	137.5	145.3	144.4	593.6	635.6	631.4	523.1	544.5	539.6
Bristol .....	1.1	1.3	1.3	4.4	4.9	4.9	5.1	5.1	5.0
Charlottesville .....	3.3	3.6	3.6	10.8	11.9	11.5	21.6	24.1	23.4
Danville .....	1.2	1.2	1.3	5.7	5.8	5.8	5.1	5.3	5.3
Lynchburg .....	3.6	3.8	3.8	14.1	14.3	14.3	9.3	10.0	9.7
Norfolk-Virginia Beach-Newport News .....	25.6	27.1	27.0	120.6	131.1	130.9	126.8	127.9	126.6
Northern Virginia .....	44.1	47.4	47.7	210.8	228.3	228.3	136.8	146.5	145.8
Richmond-Petersburg .....	34.6	35.9	36.0	86.0	93.5	92.8	88.6	91.7	91.2
Roanoke .....	7.9	8.3	8.3	26.7	27.6	27.4	15.1	15.4	15.5
<b>Washington</b> .....	104.7	107.2	106.1	397.8	429.5	426.5	352.7	360.7	357.5
Seattle .....	66.6	68.0	67.4	205.7	225.1	223.8	129.1	131.5	130.4
<b>West Virginia</b> .....	23.6	24.5	24.4	120.9	125.1	122.9	127.9	131.1	128.2
Charleston .....	5.9	6.1	6.1	24.5	25.5	25.1	21.0	20.9	20.8
Huntington-Ashland .....	3.9	3.9	3.9	19.5	20.1	19.9	19.6	20.1	19.4
Parkersburg-Manetta .....	2.2	2.3	2.3	12.8	13.7	13.4	9.6	10.0	9.9
Wheeling .....	2.6	2.7	2.6	15.8	15.7	15.5	9.2	9.6	9.5
<b>Wisconsin</b> .....	109.2	113.3	112.1	435.5	460.8	453.4	326.9	332.9	324.8
Appleton-Oshkosh-Neenah .....	6.9	7.2	7.1	25.9	27.5	27.3	16.2	16.9	16.4
Eau Claire .....	1.9	1.9	1.9	11.5	11.9	11.8	9.6	10.2	9.6
Green Bay .....	3.3	3.5	3.5	19.2	21.6	21.1	10.5	11.1	10.9
Janesville-Beloit .....	1.6	1.6	1.6	11.0	12.2	12.0	6.6	6.9	6.7
Kenosha .....	1.2	1.3	1.3	8.3	8.6	8.5	6.1	6.5	6.4
La Crosse .....	1.4	1.5	1.4	13.1	14.1	13.8	6.7	8.3	7.6
Madison .....	17.1	18.1	17.8	40.9	43.0	42.7	56.1	56.4	55.8
Milwaukee .....	47.3	49.5	49.0	172.9	184.3	180.3	81.6	81.7	81.0
Racine .....	2.2	2.3	2.3	13.9	14.3	14.2	8.1	8.5	8.2
Sheboygan .....	2.1	2.2	( <sup>1</sup> )	7.4	7.6	( <sup>2</sup> )	5.6	5.5	( <sup>2</sup> )
Wausau .....	3.3	3.4	3.4	7.8	8.1	8.1	6.0	6.3	6.1
<b>Wyoming</b> .....	7.6	7.3	7.3	31.0	30.9	30.8	51.4	51.7	51.0
<b>Puerto Rico</b> .....	34.1	35.6	35.8	107.1	114.0	111.4	266.4	273.7	273.5
Caguas .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	15.2	15.6	15.6
Mayaguez .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.9	18.5	18.5
Ponce .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.0	9.6	9.5	16.3	16.7	16.7
San Juan .....	27.8	29.0	29.1	77.7	81.0	79.7	156.4	162.3	162.1
<b>Virgin Islands</b> .....	1.6	1.7	1.7	9.0	9.3	9.3	12.5	12.6	12.4

<sup>1</sup> Not available

<sup>2</sup> Publication of data has been suspended because of budget cuts

<sup>3</sup> Combined with construction

<sup>p</sup> = preliminary

NOTE: Area definitions are published annually in the May issue of this publication. All State and area data have been adjusted to March 1987 benchmarks except Colorado. Data for Colorado have been adjusted to December 1986 benchmarks.

# Employment and Wages Annual Averages 1986

U.S. Department of Labor  
Bureau of Labor Statistics  
Bulletin 2297

A comprehensive portrait  
of American business by State

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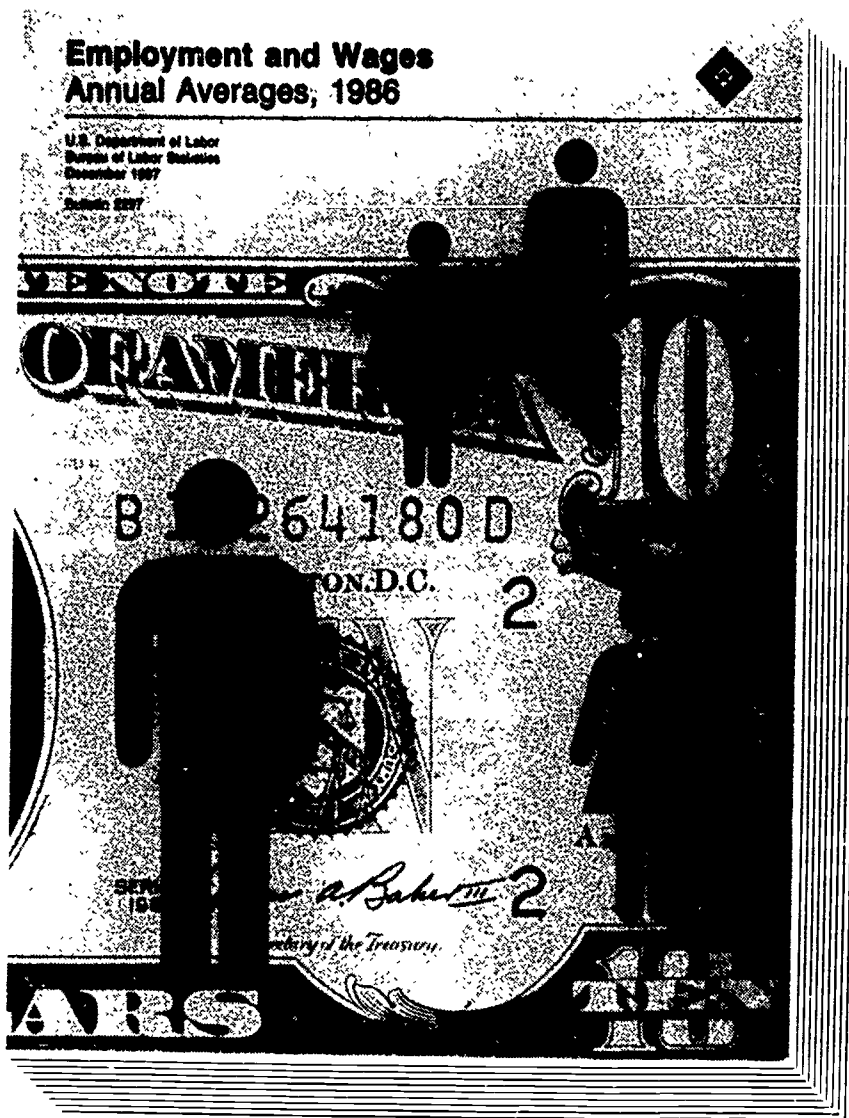
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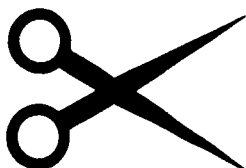
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**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

**C-1. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payroll by major industry, 1964 to date**

Year and month	Total private <sup>1</sup>			Mining			Construction		
	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
<b>Annual averages</b>									
1964 .....	38.7	\$2.36	\$91.33	41.9	\$2.81	\$117.74	37.2	\$3.55	\$132.06
1965 .....	38.8	2.46	95.45	42.3	2.92	123.52	37.4	3.70	138.38
1966 .....	38.6	2.56	98.82	42.7	3.05	130.24	37.6	3.89	146.26
1967 .....	38.0	2.68	101.84	42.6	3.19	135.89	37.7	4.11	154.95
1968 .....	37.8	2.85	107.73	42.6	3.35	142.71	37.3	4.41	164.49
1969 .....	37.7	3.04	114.61	43.0	3.30	154.80	37.9	4.79	181.54
1970 .....	37.1	3.23	119.83	42.7	3.85	164.40	37.3	5.24	195.45
1971 .....	36.9	3.45	127.31	42.4	4.06	172.14	37.2	5.69	211.67
1972 .....	37.0	3.70	136.90	42.6	4.44	189.14	36.5	5.36	221.19
1973 .....	36.9	3.94	145.39	42.4	4.75	201.40	36.8	6.41	235.89
1974 .....	36.5	4.24	154.76	41.9	5.23	219.14	36.6	6.81	249.25
1975 .....	36.1	4.53	163.53	41.9	5.95	249.31	36.4	7.31	266.08
1976 .....	36.1	4.86	175.45	42.4	6.46	273.90	36.8	7.71	283.73
1977 .....	36.0	5.25	189.00	43.4	6.84	301.20	36.5	8.10	295.65
1978 .....	35.8	5.69	203.70	43.4	7.67	332.88	36.8	8.66	318.69
1979 .....	35.7	6.16	219.91	43.0	8.49	365.07	37.0	9.27	342.99
1980 .....	35.3	6.66	235.10	43.3	9.17	397.06	37.0	9.94	367.78
1981 .....	35.2	7.25	255.20	43.7	10.04	438.75	36.9	10.82	399.26
1982 .....	34.8	7.68	267.26	42.7	10.77	459.88	36.7	11.63	426.82
1983 .....	35.0	8.02	280.70	42.5	11.28	479.40	37.1	11.94	442.97
1984 .....	35.2	8.32	292.86	43.3	11.63	503.58	37.8	12.13	458.51
1985 .....	34.9	8.57	299.09	43.4	11.98	519.93	37.7	12.32	464.46
1986 .....	34.8	8.76	304.85	42.2	12.44	524.97	37.4	12.47	466.38
1987 .....	34.8	8.98	312.50	42.3	12.45	526.64	37.7	12.66	477.28
<b>Monthly data, not seasonally adjusted</b>									
<b>1987:</b>									
February .....	34.5	\$8.92	\$307.74	42.0	\$12.56	\$527.52	36.8	\$12.51	\$460.37
March .....	34.6	8.92	308.63	41.8	12.51	522.92	37.4	12.59	470.87
April .....	34.6	8.91	308.29	41.8	12.43	519.57	37.4	12.55	469.37
May .....	34.8	8.93	310.76	42.1	12.42	526.61	38.5	12.60	485.10
June .....	35.0	9.02	312.20	42.4	12.41	527.46	38.1	12.61	480.44
July .....	35.1	8.91	312.74	42.1	12.31	518.25	38.6	12.57	485.20
August .....	35.3	8.94	315.58	42.4	12.32	522.37	38.6	12.67	489.06
September .....	34.7	9.06	314.32	42.1	12.43	523.30	36.4	12.77	464.83
October .....	34.9	9.09	317.24	42.7	12.34	526.92	38.8	12.79	496.25
November .....	34.8	9.14	318.07	42.3	12.47	527.48	37.1	12.80	474.88
December .....	34.9	9.13	318.64	42.8	12.50	535.00	37.6	12.78	480.53
<b>1988:</b>									
January <sup>2</sup> .....	34.4	9.18	315.79	42.0	12.67	532.14	36.0	12.92	465.12
February <sup>2</sup> .....	34.6	9.17	317.28	41.9	12.60	527.94	36.2	12.74	461.19

See footnotes at end of table.

**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

**C-1. Average hours and earnings of production or nonsupervisory workers' on private nonagricultural payrolls by major industry, 1964 to date—Continued**

Year and month	Manufacturing				Transportation and public utilities			Wholesale trade		
	Weekly hours	Hourly earnings	Hourly earnings, excluding overtime	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
Annual averages										
1964 .....	40.7	\$2.53	\$2.43	\$102.97	41.1	\$2.89	\$118.78	40.7	\$2.52	\$102.56
1965 .....	41.2	2.61	2.50	107.53	41.3	3.03	125.14	40.8	2.61	106.49
1966 .....	41.4	2.71	2.59	112.19	41.2	3.11	128.13	40.7	2.73	111.11
1967 .....	40.6	2.82	2.71	114.49	40.5	3.23	130.82	40.3	2.88	116.06
1968 .....	40.7	3.01	2.88	122.51	40.6	3.42	138.85	40.1	3.05	122.31
1969 .....	40.6	3.19	3.05	129.51	40.7	3.63	147.74	40.2	3.23	129.85
1970 .....	39.8	3.35	3.23	133.33	40.5	3.85	155.93	39.9	3.44	137.26
1971 .....	39.9	3.57	3.45	142.44	40.1	4.21	168.82	39.5	3.65	144.18
1972 .....	40.5	3.82	3.66	154.71	40.4	4.65	187.86	39.4	3.85	151.69
1973 .....	40.7	4.09	3.91	166.46	40.5	5.02	203.31	39.3	4.08	160.34
1974 .....	40.0	4.42	4.25	176.80	40.2	5.41	217.48	38.8	4.39	170.33
1975 .....	39.5	4.83	4.67	190.79	39.7	5.88	233.44	38.7	4.73	183.05
1976 .....	40.1	5.22	5.02	209.32	39.8	6.45	256.71	38.7	5.03	194.66
1977 .....	40.3	5.68	5.44	228.90	39.9	6.99	278.90	38.8	5.39	209.13
1978 .....	40.4	6.17	5.91	249.27	40.0	7.57	302.80	38.8	5.88	228.14
1979 .....	40.2	6.70	6.43	269.34	39.9	8.16	325.58	38.8	6.39	247.93
1980 .....	39.7	7.27	7.02	288.62	39.6	8.87	351.25	38.5	6.96	267.96
1981 .....	39.8	7.99	7.72	318.00	39.4	9.70	382.18	38.5	7.56	291.06
1982 .....	38.9	8.49	8.25	330.26	39.0	10.32	402.48	38.3	8.09	309.85
1983 .....	40.1	8.83	8.52	354.08	39.0	10.79	420.81	38.5	8.55	329.18
1984 .....	40.7	9.19	8.82	374.03	39.4	11.12	438.13	38.5	8.89	342.27
1985 .....	40.5	9.54	9.16	386.37	39.5	11.40	450.30	38.4	9.16	351.74
1986 .....	40.7	9.73	9.34	396.01	39.2	11.70	458.64	38.4	9.35	359.04
1987 .....	41.0	9.91	9.48	406.31	39.1	12.01	469.59	38.2	9.61	367.10
Monthly data, not seasonally adjusted										
1987:										
February .....	40.8	\$9.84	\$9.44	\$401.47	39.0	\$11.93	\$465.27	37.9	\$9.55	\$361.95
March .....	40.9	9.85	9.44	402.87	38.9	11.50	462.91	37.9	9.53	361.19
April .....	40.4	9.87	9.48	398.75	38.8	11.94	463.27	38.1	9.53	363.09
May .....	40.9	9.87	9.45	403.68	39.0	11.95	466.05	38.3	9.57	366.53
June .....	41.1	9.87	9.44	405.66	39.1	11.91	465.63	38.4	9.57	367.49
July .....	40.6	9.87	9.46	400.72	39.4	12.00	472.80	38.3	9.57	366.53
August .....	40.9	9.86	9.42	403.27	39.6	12.04	476.78	38.4	9.62	369.41
September .....	40.8	10.00	9.53	408.00	39.2	12.09	473.93	38.1	9.67	368.43
October .....	41.3	9.95	9.49	410.94	39.3	12.09	475.14	38.4	9.67	371.33
November .....	41.4	10.01	9.54	414.41	39.2	12.17	477.06	38.3	9.74	373.04
December .....	41.8	10.08	9.60	421.34	39.2	12.17	477.06	38.3	9.74	373.04
1988:										
January .....	41.0	10.07	9.63	412.87	38.9	12.12	471.47	38.0	9.79	372.02
February .....	40.7	10.07	9.64	409.85	38.9	12.12	472.25	37.9	9.81	371.80

See footnotes at end of table



**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

**C-1. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by major industry, 1964 to date—Continued**

Year and month	Retail trade			Finance, insurance, and real estate			Services		
	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
<b>Annual averages</b>									
1964 .....	37.0	\$1.75	\$64.75	37.3	\$2.30	\$85.79	36.1	\$1.94	\$70.03
1965 .....	36.6	1.82	66.61	37.2	2.39	88.91	35.9	2.05	73.60
1966 .....	35.9	1.91	68.57	37.3	2.47	92.13	35.5	2.17	77.04
1967 .....	35.3	2.01	70.95	37.1	2.58	95.72	35.1	2.29	80.38
1968 .....	34.7	2.16	74.95	37.0	2.75	101.75	34.7	2.42	83.97
1969 .....	34.2	2.30	78.66	37.1	2.93	108.70	34.7	2.61	90.57
1970 .....	33.8	2.44	82.47	36.7	3.07	112.67	34.4	2.81	96.66
1971 .....	33.7	2.60	87.62	36.6	3.22	117.85	33.9	3.04	103.06
1972 .....	33.4	2.75	91.85	36.6	3.36	122.98	33.9	3.27	110.85
1973 .....	33.1	2.91	96.32	36.6	3.53	129.20	33.8	3.47	117.29
1974 .....	32.7	3.14	102.68	36.5	3.77	137.61	33.6	3.75	126.00
1975 .....	32.4	3.36	108.86	36.5	4.06	148.19	33.5	4.02	134.67
1976 .....	32.1	3.57	114.60	36.4	4.27	155.43	33.3	4.31	143.52
1977 .....	31.6	3.85	121.66	36.4	4.54	165.26	33.0	4.65	153.45
1978 .....	31.0	4.20	130.20	36.4	4.89	178.00	32.8	4.99	163.67
1979 .....	30.6	4.53	138.62	36.2	5.27	190.77	32.7	5.36	175.27
1980 .....	30.2	4.88	147.38	36.2	5.79	209.60	32.6	5.85	190.71
1981 .....	30.1	5.25	158.03	36.3	6.31	229.05	32.6	6.41	208.97
1982 .....	29.9	5.48	163.85	36.2	6.78	245.44	32.6	6.92	225.59
1983 .....	29.8	5.74	171.05	36.2	7.29	263.90	32.7	7.31	239.04
1984 .....	29.8	5.85	174.33	36.5	7.63	278.50	32.6	7.59	247.43
1985 .....	29.4	5.94	174.64	36.4	7.94	289.02	32.5	7.90	256.75
1986 .....	29.2	6.03	176.08	36.4	8.35	303.94	32.5	8.16	265.20
1987 .....	29.3	6.12	179.32	36.2	8.76	317.11	32.5	8.47	275.28
<b>Monthly data, not seasonally adjusted</b>									
<b>1987:</b>									
February .....	28.7	\$6.09	\$174.78	36.4	\$8.75	\$318.50	32.4	\$8.43	\$273.13
March .....	28.9	6.08	175.71	36.3	8.72	316.54	32.4	8.41	272.48
April .....	29.2	6.09	177.83	36.3	8.71	316.17	32.3	8.40	271.32
May .....	29.3	6.09	178.44	36.3	8.72	316.54	32.4	8.38	271.51
June .....	29.6	6.08	179.97	36.4	8.68	315.95	32.6	8.35	272.21
July .....	30.0	6.07	182.10	36.2	8.69	314.58	32.8	8.33	273.22
August .....	30.3	6.06	183.62	36.4	8.81	320.68	32.9	8.40	276.36
September .....	29.6	6.20	183.52	36.0	8.79	316.44	32.4	8.55	277.02
October .....	29.2	6.16	179.87	36.2	8.81	318.92	32.5	8.61	279.83
November .....	29.0	6.19	179.51	36.3	8.94	324.52	32.5	8.71	283.08
December .....	29.3	6.19	181.37	36.0	8.87	319.32	32.4	8.73	282.85
<b>1988:</b>									
January <sup>p</sup> .....	28.3	6.23	176.31	36.2	9.01	326.16	32.5	8.78	285.35
February <sup>p</sup> .....	28.6	6.22	177.89	36.6	9.05	331.23	32.7	8.80	287.76

<sup>1</sup> Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade, finance, insurance, and real estate; and services

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1986 forward are subject to revision.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers' on private nonagricultural payrolls by detailed industry**

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>
Total private .....		34.8	34.4	34.9	34.4	34.6	-	-	-	-	-
Mining .....		42.3	42.5	42.8	42.0	41.9	-	-	-	-	-
Metal mining .....	10	42.0	41.7	42.6	42.7	-	-	-	-	-	-
Iron ores .....	101	41.2	41.4	42.4	41.4	-	-	-	-	-	-
Copper ores .....	102	42.8	42.9	43.2	44.7	-	-	-	-	-	-
Coal mining .....	11,12	41.9	42.1	42.7	42.9	-	-	-	-	-	-
Bituminous coal and lignite mining .....	12	42.0	42.2	42.8	43.0	-	-	-	-	-	-
Oil and gas extraction .....	13	41.8	42.8	42.3	41.5	-	-	-	-	-	-
Crude petroleum, natural gas, and natural gas liquids .....	131,2	41.3	44.2	42.5	42.4	-	-	-	-	-	-
Oil and gas field services .....	138	42.0	41.9	42.2	41.0	-	-	-	-	-	-
Nonmetallic minerals, except fuels .....	14	45.2	42.8	44.9	41.9	-	-	-	-	-	-
Crushed and broken stone .....	142	46.5	43.7	46.4	41.8	-	-	-	-	-	-
Construction .....		37.7	37.2	37.6	36.0	36.2	-	-	-	-	-
General building contractors .....	15	37.4	37.1	37.4	35.8	-	-	-	-	-	-
Residential building construction .....	152	36.9	36.2	36.6	35.0	-	-	-	-	-	-
Operative builders .....	153	38.2	39.2	37.6	36.8	-	-	-	-	-	-
Nonresidential building construction .....	154	38.0	37.9	38.2	36.7	-	-	-	-	-	-
Heavy construction contractors .....	16	41.5	40.0	41.4	39.1	-	-	-	-	-	-
Highway and street construction .....	161	41.9	39.0	40.8	38.4	-	-	-	-	-	-
Heavy construction, except highway .....	162	41.2	40.5	41.6	39.5	-	-	-	-	-	-
Special trade contractors .....	17	36.8	36.6	36.6	35.2	-	-	-	-	-	-
Plumbing, heating, and air conditioning .....	171	38.0	38.0	38.3	37.4	-	-	-	-	-	-
Painting, paper hanging, and decorating .....	172	35.8	35.0	35.8	33.8	-	-	-	-	-	-
Electrical work .....	173	38.6	38.7	39.2	38.1	-	-	-	-	-	-
Masonry, stonework, and plastering .....	174	34.8	34.8	35.0	32.8	-	-	-	-	-	-
Carpentering and flooring .....	175	35.1	34.6	34.4	33.1	-	-	-	-	-	-
Roofing and sheet metal work .....	176	33.6	32.3	32.0	30.0	-	-	-	-	-	-
Manufacturing .....		41.0	40.8	41.8	41.0	40.7	3.7	3.5	4.2	3.8	3.6
Durable goods .....		41.5	41.5	42.4	41.6	41.3	3.8	3.6	4.3	3.9	3.8
Lumber and wood products .....	24	40.6	40.1	40.4	39.6	40.0	3.8	3.3	3.7	3.2	-
Logging camps and logging contractors .....	241	39.3	39.5	38.9	39.0	-	4.2	3.5	4.2	4.1	-
Sawmills and planing mills .....	242	41.7	41.5	41.6	41.2	-	4.5	4.1	4.5	4.3	-
Sawmills and planing mills, general .....	2421	41.9	41.6	41.7	41.6	-	4.7	4.2	4.7	4.5	-
Hardwood dimension and flooring .....	2426	41.4	41.4	41.7	40.3	-	3.9	3.9	3.8	3.5	-
Millwork, plywood, and structural members .....	243	40.9	40.1	40.7	39.3	-	3.6	3.0	3.4	2.7	-
Millwork .....	2431	40.8	39.5	39.6	38.8	-	3.0	1.9	2.5	1.8	-
Wood kitchen cabinets .....	2434	40.1	39.8	40.9	38.1	-	3.2	3.0	3.3	2.2	-
Hardwood veneer and plywood .....	2435	41.1	41.5	42.0	40.2	-	4.0	3.9	4.2	3.8	-
Softwood veneer and plywood .....	2436	42.2	41.6	42.0	42.5	-	4.9	4.7	4.7	4.5	-
Wood containers .....	244	38.5	37.4	38.9	37.1	-	2.8	2.1	2.9	2.6	-
Wood buildings and mobile homes .....	245	38.8	37.7	38.3	37.0	-	2.6	1.9	2.2	1.6	-
Mobile homes .....	2451	38.3	37.2	37.4	35.2	-	2.2	1.5	1.8	1.0	-
Miscellaneous wood products .....	249	40.5	40.1	40.9	39.9	-	3.3	3.2	3.4	3.2	-
Furniture and fixtures .....	25	39.9	39.8	41.0	39.2	38.9	2.8	2.6	3.3	2.7	-
Household furniture .....	251	39.7	39.7	40.7	39.0	-	2.7	2.5	3.1	2.6	-
Wood household furniture .....	2511	40.1	39.9	41.3	39.6	-	2.8	2.6	3.2	2.8	-
Upholstered household furniture .....	2512	38.7	39.2	39.5	37.3	-	2.2	2.4	2.6	1.9	-
Metal household furniture .....	2514	41.3	41.4	42.9	41.6	-	3.8	3.5	4.3	3.9	-
Mattresses and bedsprings .....	2515	38.8	38.5	38.6	38.6	-	3.0	2.6	2.5	2.6	-
Office furniture .....	252	40.6	40.7	43.4	40.5	-	2.9	2.7	4.0	3.0	-
Public building and related furniture .....	253	40.2	39.4	40.3	40.3	-	3.3	2.7	3.9	4.3	-
Partitions and fixtures .....	254	40.3	40.3	41.0	39.1	-	3.4	2.7	4.0	3.0	-
Miscellaneous furniture and fixtures .....	259	39.7	38.3	40.0	38.6	-	2.6	2.0	2.9	2.0	-
Stone, clay, and glass products .....	32	42.3	41.4	42.2	40.9	40.9	5.1	4.4	4.9	4.4	-
Flat glass .....	321	46.0	48.0	46.9	45.6	-	6.8	7.1	7.7	7.7	-
Glass and glassware, pressed or blown .....	322	41.3	41.1	41.0	41.1	-	4.7	4.3	4.5	4.3	-

See footnotes at end of table.

ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED

C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Avg 1987	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg 1987	Jan. 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>
<b>Total private</b> .....		\$8.98	\$8.90	\$9.13	\$9.18	\$9.17	\$312.50	\$306.16	\$318.64	\$315.79	\$317.28
<b>Mining</b> .....		12.45	12.66	12.50	12.67	12.60	526.64	538.05	535.00	532.14	527.94
Metal mining .....	10	13.00	12.94	12.78	13.06	-	546.00	539.60	544.43	557.66	-
Iron ores .....	101	14.48	14.84	13.19	14.33	-	596.58	614.38	559.26	593.26	-
Copper ores .....	102	11.47	11.40	11.54	11.59	-	490.92	489.06	498.53	518.07	-
Coal mining .....	11,12	15.75	15.75	16.00	16.10	-	654.78	663.08	683.20	690.69	-
Bituminous coal and lignite mining .....	12	15.80	15.82	16.05	16.15	-	658.86	667.60	686.94	694.45	-
Oil and gas extraction .....	13	11.42	11.72	11.43	11.53	-	477.36	501.62	483.49	478.50	-
Crude petroleum, natural gas, and natural gas liquids .....	131,2	14.04	14.10	14.32	14.42	-	579.85	623.22	608.60	611.41	-
Oil and gas field services .....	138	9.98	10.16	9.97	9.99	-	419.16	425.70	420.73	409.59	-
Nonmetallic minerals, except fuels .....	14	10.64	10.43	10.78	10.77	-	480.93	446.40	484.02	451.26	-
Crushed and broken stone .....	142	10.03	9.58	10.20	10.00	-	466.40	418.65	473.28	418.00	-
<b>Construction</b> .....		12.66	12.58	12.78	12.92	12.74	477.28	467.98	480.53	465.12	461.19
General building contractors .....	15	11.75	11.57	11.97	12.10	-	439.45	429.25	447.68	433.18	-
Residential building construction .....	152	11.09	10.95	11.38	11.48	-	409.22	396.39	416.51	401.80	-
Operative builders .....	153	10.33	9.95	10.86	11.01	-	394.61	390.04	408.34	405.17	-
Nonresidential building construction .....	154	12.53	12.29	12.65	12.81	-	476.14	465.79	483.23	470.13	-
Heavy construction contractors .....	16	11.99	11.78	11.86	11.88	-	497.59	471.20	491.00	464.51	-
Highway and street construction .....	161	11.92	11.33	11.64	11.80	-	499.45	441.87	474.91	453.12	-
Heavy construction, except highway .....	162	12.02	11.98	11.98	11.92	-	495.22	485.19	498.37	470.84	-
Special trade contractors .....	17	13.24	13.23	13.39	13.53	-	487.23	484.22	490.07	476.26	-
Plumbing, heating, and air conditioning .....	171	13.43	13.31	13.53	13.61	-	510.34	505.78	520.50	509.01	-
Painting, paper hanging, and decorating .....	172	12.49	12.54	12.50	12.77	-	447.14	438.90	447.50	431.63	-
Electrical work .....	173	14.68	14.54	14.72	14.73	-	566.65	562.70	577.02	561.21	-
Masonry, stonework, and plastering .....	174	13.39	13.29	13.42	13.48	-	465.97	462.49	469.70	442.14	-
Carpentering and flooring .....	175	12.64	12.46	12.90	12.89	-	443.66	431.12	443.76	426.66	-
Roofing and sheet metal work .....	176	11.59	11.59	11.96	12.16	-	389.42	374.36	382.72	364.80	-
<b>Manufacturing</b> .....		9.91	9.84	10.08	10.07	10.07	406.31	401.47	421.34	412.87	409.85
<b>Durable goods</b> .....		10.45	10.38	10.63	10.62	10.61	433.68	430.77	450.71	441.79	438.19
Lumber and wood products .....	24	8.40	8.27	8.45	8.52	8.53	341.04	331.63	341.38	337.39	341.20
Logging camps and logging contractors .....	241	10.83	10.56	10.74	10.89	-	425.62	417.12	417.79	424.71	-
Sawmills and planing mills .....	242	8.55	8.45	8.65	8.72	-	356.54	350.68	359.84	359.26	-
Sawmills and planing mills, general .....	2421	8.92	8.84	9.01	9.10	-	373.75	367.74	375.72	378.56	-
Hardwood dimension and flooring .....	2426	6.80	6.62	7.00	6.94	-	281.52	274.07	291.90	279.68	-
Millwork, plywood, and structural members .....	243	8.34	8.19	8.36	8.54	-	341.11	328.42	340.25	335.62	-
Millwork .....	2431	8.61	8.33	8.54	8.89	-	351.29	329.04	338.18	344.93	-
Wood kitchen cabinets .....	2434	7.66	7.63	7.79	7.66	-	307.17	303.67	318.61	291.85	-
Hardwood veneer and plywood .....	2435	6.85	6.77	6.89	7.00	-	281.54	280.96	289.38	281.40	-
Softwood veneer and plywood .....	2436	9.74	9.62	9.80	9.99	-	411.03	400.19	411.60	424.58	-
Wood containers .....	244	6.13	6.00	6.26	6.23	-	236.01	224.40	243.51	231.13	-
Wood buildings and mobile homes .....	245	7.89	7.74	7.98	7.67	-	306.13	291.80	305.63	283.79	-
Mobile homes .....	2451	7.97	7.76	8.05	7.84	-	305.25	288.67	301.07	275.97	-
Miscellaneous wood products .....	249	7.30	7.25	7.35	7.33	-	295.65	290.73	300.62	292.47	-
Furniture and fixtures .....	25	7.67	7.61	7.79	7.81	7.73	306.03	302.88	319.39	306.15	300.70
Household furniture .....	251	7.08	7.00	7.20	7.21	-	281.08	277.90	293.04	281.19	-
Wood household furniture .....	2511	6.56	6.46	6.69	6.74	-	263.06	258.55	276.30	266.90	-
Upholstered household furniture .....	2512	7.77	7.70	7.97	7.93	-	300.70	301.84	314.82	295.79	-
Metal household furniture .....	2514	7.04	6.91	6.91	7.02	-	290.75	286.07	296.44	292.03	-
Mattresses and bedsprings .....	2515	7.60	7.57	7.64	7.58	-	294.88	291.45	294.90	292.59	-
Office furniture .....	252	8.69	8.72	8.82	9.07	-	352.81	354.90	382.79	367.34	-
Public building and related furniture .....	253	8.01	7.91	7.96	8.17	-	322.00	311.65	322.38	329.25	-
Partitions and fixtures .....	254	9.17	9.04	9.39	9.20	-	369.55	364.31	384.99	359.72	-
Miscellaneous furniture and fixtures .....	259	8.09	8.12	8.19	8.28	-	321.17	311.00	327.60	319.61	-
Stone, clay, and glass products .....	32	10.27	10.17	10.33	10.37	10.38	434.42	421.04	435.93	424.13	424.54
Flat glass .....	321	14.47	14.29	14.99	14.99	-	665.62	657.34	703.03	683.54	-
Glass and glassware, pressed or blown .....	322	11.39	11.27	11.43	11.72	-	470.41	463.20	468.63	481.69	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Avg 1987	Jan 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>	Avg 1987	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>
<b>Durable goods—Continued</b>											
<b>Stone, clay, and glass products—Continued</b>											
Glass containers .....	3221	41.4	41.3	40.9	40.3	-	5.7	5.2	5.3	5.0	-
Pressed and blown glass, nec. ....	3229	41.3	40.8	41.2	42.0	-	3.6	3.2	3.6	3.6	-
Products of purchased glass .....	323	41.6	41.5	41.7	41.2	-	3.7	3.7	3.7	3.2	-
Cement, hydraulic .....	324	42.0	41.9	41.9	42.2	-	3.6	4.4	3.6	4.0	-
Structural clay products .....	325	41.9	41.9	42.1	41.3	-	4.3	4.0	4.6	4.1	-
Pottery and related products .....	326	40.3	39.8	41.7	40.7	-	3.1	2.7	3.7	3.1	-
Concrete, gypsum, and plaster products ..	327	43.5	41.6	42.0	39.5	-	6.4	5.1	5.5	4.6	-
Concrete block and brick .....	3271	45.1	43.8	44.3	41.3	-	7.8	6.9	6.6	5.0	-
Concrete products, nec. ....	3272	43.1	42.7	43.2	41.8	-	5.8	5.2	5.6	5.5	-
Ready-mixed concrete .....	3273	42.7	39.4	40.1	36.5	-	6.3	4.2	5.0	3.4	-
Misc. nonmetallic mineral products .....	329	42.0	41.4	43.7	42.3	-	4.6	4.0	5.2	5.0	-
Abrasive products .....	3291	41.8	40.6	44.6	42.4	-	3.6	2.9	4.9	4.2	-
Asbestos products ..	3292	42.8	43.9	44.9	43.7	-	5.4	5.4	7.0	5.6	-
<b>Primary metal industries</b>											
Blast furnaces and basic steel products .....	331	43.1	42.6	44.2	43.5	43.3	5.0	4.4	5.5	5.2	-
Blast furnaces and steel mills .....	3312	43.6	42.5	44.6	43.8	44.1	5.1	4.2	5.7	5.4	-
Steel pipe and tubes .....	3317	42.9	43.2	44.4	43.1	-	5.1	4.4	6.4	5.7	-
Iron and steel foundries .....	332	42.8	42.6	44.1	43.7	-	5.0	4.7	5.6	5.5	-
Gray iron foundries .....	3321	42.9	42.5	44.0	43.6	-	5.4	5.1	5.6	5.9	-
Malleable iron foundries .....	3322	41.3	40.9	42.3	42.4	-	3.7	3.1	4.6	4.3	-
Steel foundries, nec. ....	3325	42.3	41.9	44.1	43.9	-	4.2	3.6	5.6	5.0	-
Primary nonferrous metals .....	333	43.7	43.2	44.2	43.6	-	4.7	4.2	4.9	4.8	-
Primary aluminum .....	3334	44.5	43.7	44.8	43.8	-	4.8	4.1	4.4	4.5	-
Nonferrous rolling and drawing .....	335	43.4	43.2	44.3	43.4	-	5.5	5.1	5.9	5.6	-
Copper rolling and drawing .....	3351	43.5	43.3	44.7	43.7	-	5.7	5.2	6.4	6.0	-
Aluminum sheet, plate, and foil .....	3353	44.3	43.4	45.6	45.5	-	7.2	6.6	7.2	7.8	-
Nonferrous wire drawing and insulating ..	3357	43.0	43.7	44.0	42.9	-	5.1	5.1	5.5	4.9	-
Nonferrous foundries ..	336	41.8	41.9	42.9	42.3	-	3.8	3.7	4.4	4.0	-
Aluminum foundries .....	3361	42.3	42.5	43.3	42.9	-	4.1	4.2	4.6	4.2	-
<b>Fabricated metal products</b>											
Metal cans and shipping containers .....	341	44.0	43.2	45.2	43.8	41.3	5.8	5.4	5.3	5.4	-
Metal cans .....	3411	44.1	43.0	45.3	44.1	-	5.8	5.3	5.3	5.6	-
Cutlery, hand tools, and hardware .....	342	41.2	41.5	42.7	41.7	-	3.3	3.1	4.3	3.8	-
Hand and edge tools, and hand saws and blades	3423,5	41.4	41.3	42.6	42.2	-	3.3	2.7	4.2	4.0	-
Hardware, nec. ....	3429	40.9	41.6	42.5	41.2	-	3.4	3.4	4.3	3.8	-
Plumbing and heating, except electric .....	343	41.1	40.7	43.2	42.2	-	3.4	3.0	4.5	4.2	-
Plumbing fittings and brass goods .....	3432	41.6	41.2	43.6	42.7	-	3.1	2.7	4.3	4.2	-
Heating equipment, except electric .....	3433	40.3	39.8	43.0	41.5	-	3.2	2.4	4.5	3.9	-
Fabricated structural metal products .....	344	40.8	40.6	41.5	40.4	-	3.4	3.0	3.9	3.3	-
Fabricated structural metal .....	3441	41.7	41.5	42.8	41.1	-	3.8	3.3	4.5	3.6	-
Metal doors, sash, and trim .....	3442	39.7	39.2	39.0	38.2	-	2.9	2.4	2.7	2.2	-
Fabricated plate work (boiler shops) ..	3443	42.1	41.3	44.1	43.1	-	3.9	3.5	4.9	4.7	-
Sheet metal work .....	3444	40.0	40.5	40.8	40.0	-	3.1	3.0	3.5	2.9	-
Architectural metal work .....	3446	40.4	40.2	40.9	39.7	-	3.3	3.3	3.6	3.4	-
Screw machine products, bolts, etc. ....	345	42.8	43.0	44.2	43.9	-	4.9	5.0	6.1	5.9	-
Screw machine products .....	3451	41.3	41.2	42.8	42.3	-	3.7	3.6	5.1	4.9	-
Bolts, nuts, rivets, and washers .....	3452	44.3	44.8	45.7	45.7	-	6.3	6.4	7.1	6.9	-
Metal forgings and stampings .....	346	42.4	42.9	43.6	42.7	-	4.7	4.8	5.2	4.9	-
Iron and steel forgings .....	3462	41.9	41.3	43.9	42.7	-	3.9	3.3	5.4	4.4	-
Automotive stampings .....	3465	43.7	44.4	44.7	43.6	-	5.6	5.8	5.7	5.6	-
Metal stampings, nec. ....	3469	41.1	41.6	42.2	41.7	-	3.9	4.0	4.7	4.3	-
Metal services, nec. ....	347	41.0	40.6	41.8	40.8	-	3.6	3.2	4.3	3.7	-
Plating and polishing .....	3471	40.8	40.4	41.7	40.5	-	3.5	3.1	4.3	3.7	-
Metal coating and allied services .....	3479	41.4	41.1	41.9	41.4	-	3.7	3.4	4.3	3.6	-
Ordnance and accessories, nec. ....	348	41.3	41.1	42.7	42.8	-	3.0	2.9	3.7	3.5	-
Ammunition, except for small arms, nec. ....	3483	40.4	40.7	41.9	41.4	-	2.4	2.6	3.0	2.6	-
Misc. fabricated metal products .....	349	41.3	41.1	42.8	42.2	-	3.6	3.1	4.5	4.1	-
Valves and pipe fittings .....	3494	41.6	40.7	43.7	43.2	-	3.7	2.7	5.4	4.7	-
Misc. fabricated wire products .....	3496	40.9	41.0	41.7	41.2	-	3.2	3.0	3.8	3.5	-
<b>Machinery, except electrical</b>											
Engines and turbines .....	35	42.2	42.0	43.6	42.8	42.5	4.0	3.7	5.0	4.4	-
Turbines and turbine generator sets .....	351	43.2	43.3	44.7	44.7	-	5.3	6.1	6.1	5.7	-
Internal combustion engines, nec. ....	3511	39.9	39.7	41.3	39.7	-	4.0	3.6	3.7	1.3	-
Farm and garden machinery .....	3519	44.3	44.7	45.8	46.3	-	5.8	7.0	6.8	7.1	-
Farm machinery and equipment .....	352	41.9	41.8	43.1	43.0	-	3.8	3.0	4.5	4.4	-
	3523	42.4	41.5	43.3	42.5	-	4.5	3.1	5.2	4.3	-

See footnotes at end of table



ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED

C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Avg 1987	Jan 1987	Dec 1987	Jan 1988 <sup>2</sup>	Feb 1989 <sup>2</sup>	Avg. 1987	Jan 1987	Dec 1987	Jan 1988 <sup>2</sup>	Feb 1988 <sup>2</sup>
<b>Durable goods—Continued</b>											
<b>Stone, clay, and glass products—Continued</b>											
Glass containers .....	3221	\$11.88	\$11.73	\$11.90	\$12.02	-	\$491.83	\$484.45	\$486.71	\$484.41	-
Pressed and blown glass, nec .....	3229	10.84	10.74	10.93	11.41	-	447.69	438.19	450.32	479.22	-
Products of purchased glass .....	323	8.89	8.99	8.77	8.90	-	369.82	373.09	365.71	356.68	-
Cement, hydraulic .....	324	13.47	13.65	13.48	13.38	-	565.74	571.94	564.81	564.64	-
Structural clay products .....	325	8.57	8.32	8.76	8.83	-	359.08	348.61	368.80	364.66	-
Pottery and related products .....	326	9.01	8.95	9.27	9.23	-	363.10	356.21	386.56	375.65	-
Concrete, gypsum, and plaster products .....	327	10.01	9.79	9.99	9.96	-	435.44	407.26	419.58	393.42	-
Concrete block and brick .....	3271	8.93	8.70	9.08	9.02	-	402.74	381.06	402.24	372.53	-
Concrete products, nec .....	3272	8.88	8.66	8.94	8.97	-	382.73	369.78	386.21	374.95	-
Ready-mixed concrete .....	3273	10.87	10.72	10.83	10.87	-	464.15	422.37	434.28	336.76	-
Misc. nonmetallic mineral products .....	329	10.40	10.28	10.56	10.43	-	436.80	425.59	461.47	441.19	-
Abrasive products .....	3291	9.71	9.56	9.91	9.94	-	405.88	388.14	441.99	421.46	-
Asbestos products .....	3292	10.37	10.25	10.73	10.55	-	443.84	449.98	481.78	461.04	-
<b>Primary metal industries</b>											
Blast furnaces and basic steel products .....	331	11.98	11.76	12.15	12.10	\$12.13	516.34	500.98	537.03	526.35	\$525.23
Blast furnaces and steel mills .....	3312	13.84	13.55	14.03	13.92	14.07	603.42	575.88	625.74	609.70	620.49
Steel pipe and tubes .....	3317	14.54	14.28	14.76	14.63	-	635.40	606.90	661.25	643.72	-
Iron and steel foundries .....	332	11.07	11.00	11.13	11.21	-	474.90	475.20	494.17	483.15	-
Gray iron foundries .....	3321	10.72	10.66	10.85	10.89	-	458.82	454.12	478.49	475.89	-
Malleable iron foundries .....	3322	11.15	11.08	11.32	11.39	-	478.34	470.90	498.08	496.60	-
Steel foundries, nec .....	3325	11.66	11.44	11.81	11.83	-	481.56	467.90	499.56	501.59	-
Primary nonferrous metals .....	333	10.08	10.07	10.20	10.17	-	426.38	421.93	449.82	446.46	-
Primary aluminum .....	3334	13.03	12.98	13.14	13.00	-	569.41	560.74	580.79	566.80	-
Nonferrous rolling and drawing .....	335	13.32	13.36	13.35	13.27	-	592.74	583.83	598.08	581.23	-
Copper rolling and drawing .....	3351	11.41	11.24	11.53	11.53	-	495.19	485.57	510.78	500.40	-
Aluminum sheet, plate, and foil .....	3353	10.54	10.44	10.74	10.74	-	458.49	452.05	480.13	469.34	-
Nonferrous wire drawing and insulating .....	3357	13.91	13.76	13.87	13.94	-	616.21	597.18	632.47	634.77	-
Nonferrous foundries .....	336	11.36	11.12	11.49	11.43	-	488.48	485.94	505.56	490.35	-
Aluminum foundries .....	3361	9.56	9.63	9.73	9.62	-	399.61	403.50	417.42	406.93	-
		9.83	9.91	10.05	9.83	-	415.81	421.18	435.17	421.71	-
<b>Fabricated metal products</b>											
Metal cans and shipping containers .....	34	10.03	9.98	10.24	10.19	10.18	416.25	414.17	437.25	425.94	420.43
Metal cans .....	341	13.24	13.24	13.42	13.40	-	582.56	571.97	606.58	586.92	-
Cutlery, hand tools, and hardware .....	3411	14.01	14.01	14.22	14.21	-	617.84	602.43	644.17	626.66	-
Hand and edge tools, and hand saws and blades .....	342	9.93	9.90	10.14	10.12	-	409.12	410.85	432.98	422.00	-
Hardware, nec .....	3423,5	9.13	9.05	9.26	9.24	-	377.98	373.77	394.48	389.93	-
Plumbing and heating, except electric .....	3429	10.34	10.33	10.61	10.63	-	422.91	429.73	450.93	437.96	-
Plumbing fittings and brass goods .....	343	9.21	9.17	9.27	9.28	-	378.53	373.22	400.46	391.62	-
Heating equipment, except electric .....	3432	8.74	8.63	8.96	8.99	-	363.58	355.56	390.66	383.87	-
Fabricated structural metal products .....	3433	9.19	9.11	9.11	9.04	-	370.36	362.58	391.73	375.16	-
Fabricated structural metal .....	344	9.29	9.22	9.53	9.47	-	370.03	374.33	395.50	382.59	-
Metal doors, sash, and trim .....	3441	9.86	9.66	10.08	10.02	-	411.16	400.89	431.42	411.82	-
Fabricated plate work (boiler shops) .....	3442	7.72	7.82	7.97	8.02	-	306.42	306.54	310.83	306.36	-
Sheet metal work .....	3443	10.30	10.20	10.50	10.43	-	433.63	421.26	463.05	449.53	-
Architectural metal work .....	3444	9.62	9.47	9.76	9.67	-	384.80	383.54	398.21	386.80	-
Screw machine products, bolts, etc .....	3446	8.79	8.69	9.06	8.66	-	355.12	349.34	370.55	343.80	-
Screw machine products .....	345	9.76	9.59	10.00	9.96	-	417.73	412.37	442.00	437.24	-
Bolts, nuts, rivets, and washers .....	3451	9.04	8.95	9.25	9.24	-	373.35	368.74	395.90	390.85	-
Metal forgings and stampings .....	3452	10.47	10.19	10.75	10.69	-	463.82	456.51	491.28	488.53	-
Iron and steel forgings .....	346	11.92	11.92	12.23	12.19	-	505.41	511.37	533.23	520.51	-
Automotive stampings .....	3462	12.63	12.43	13.18	12.87	-	529.20	517.09	578.60	549.55	-
Metal stampings, nec .....	3465	13.93	13.92	14.29	14.36	-	608.74	618.05	638.76	626.10	-
Metal services, nec .....	3469	9.23	9.25	9.39	9.44	-	379.35	384.80	396.26	393.65	-
Plating and polishing .....	347	8.03	7.92	8.20	8.12	-	329.23	321.55	342.76	331.30	-
Metal coating and allied services .....	3471	7.99	7.87	8.18	8.22	-	325.99	317.95	341.11	332.91	-
Ordnance and accessories, nec .....	3479	8.10	8.01	8.23	7.93	-	335.34	329.21	344.84	328.30	-
Ammunition, except for small arms, nec .....	348	10.96	10.78	11.19	11.20	-	452.65	443.06	477.81	479.36	-
Misc. fabricated metal products .....	3483	10.54	10.46	10.73	10.78	-	425.82	425.72	449.59	446.29	-
Valves and pipe fittings .....	349	9.36	9.25	9.57	9.51	-	386.57	380.18	409.60	401.32	-
Misc. fabricated wire products .....	3494	9.98	9.77	10.32	10.15	-	415.17	397.64	450.98	438.48	-
	3496	8.46	8.39	8.60	8.56	-	346.01	343.99	358.62	352.67	-
<b>Machinery, except electrical</b>											
Engines and turbines .....	35	10.77	10.64	10.96	10.92	10.91	454.49	446.88	477.86	467.38	463.68
Turbines and turbine generator sets .....	351	13.33	13.22	13.43	13.63	-	575.86	571.43	600.32	609.26	-
Internal combustion engines, nec .....	3511	13.02	12.60	13.67	13.72	-	519.50	500.22	564.57	544.68	-
Farm and garden machinery .....	3519	13.43	13.42	13.36	13.61	-	594.95	599.87	611.89	630.14	-
Farm machinery and equipment .....	352	10.17	9.29	10.49	10.30	-	426.12	388.32	452.12	442.90	-
	3523	10.99	10.01	11.34	11.13	-	465.98	415.42	491.02	473.03	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Avg. 1987	Jan 1987	Dec 1987	Jan 1988°	Feb 1988°	Avg 1987	Jan. 1987	Dec. 1987	Jan 1988°	Feb. 1988°
<b>Durable goods—Continued</b>											
<b>Machinery, except electrical—Continued</b>											
Construction and related machinery .....	353	42.5	41.4	44.7	43.4	-	3.8	2.8	5.2	4.5	-
Construction machinery .....	3531	43.4	42.1	45.6	45.4	-	3.4	2.4	4.7	4.8	-
Mining machinery .....	3532	42.5	42.2	44.1	42.8	-	4.2	3.3	5.4	4.4	-
Oil field machinery .....	3533	42.4	40.0	44.9	41.9	-	5.4	3.5	6.6	4.9	-
Conveyors and conveying equipment .....	3535	42.6	41.8	44.0	42.2	-	4.0	3.4	5.1	3.9	-
Industrial trucks and tractors .....	3537	40.6	40.1	43.3	41.6	-	3.1	2.4	4.7	3.6	-
Metalworking machinery .....	354	42.5	42.7	44.2	43.5	-	4.7	4.7	5.8	5.4	-
Machine tools, metal cutting types .....	3541	42.1	42.1	43.8	43.1	-	3.8	3.7	5.2	4.7	-
Machine tools, metal forming types .....	3542	42.4	41.2	45.2	44.3	-	5.0	4.1	7.2	6.4	-
Special dies, tools, jigs, and fixtures .....	3544	43.3	43.8	44.9	43.9	-	5.5	5.9	6.4	6.1	-
Machine tool accessories .....	3545	41.5	41.2	43.5	43.1	-	3.9	3.5	5.4	5.0	-
Power driven hand tools .....	3546	41.2	42.5	42.0	41.9	-	2.9	2.7	3.4	3.0	-
Special industry machinery .....	355	41.9	42.1	43.3	42.6	-	4.0	3.9	5.2	4.7	-
Food products machinery .....	3551	42.0	42.0	43.4	42.4	-	3.7	3.5	4.7	4.3	-
Textile machinery .....	3552	43.0	43.8	43.9	42.9	-	4.1	4.5	4.9	4.1	-
Printing trades machinery .....	3555	40.0	40.9	40.7	41.3	-	4.1	4.1	4.8	5.5	-
General industrial machinery .....	356	42.1	42.0	43.9	43.0	-	3.9	3.4	5.0	4.5	-
Pumps and pumping equipment .....	3561	42.8	42.4	44.6	43.4	-	3.9	3.1	5.3	4.7	-
Ball and roller bearings .....	3562	43.3	43.1	43.8	44.5	-	5.0	4.8	5.1	5.5	-
Air and gas compressors .....	3563	42.0	41.8	44.0	43.3	-	3.6	2.8	5.4	4.2	-
Blowers and fans .....	3564	41.0	41.0	43.2	40.5	-	2.9	3.0	3.9	2.6	-
Speed changers, drives, and gears .....	3566	42.6	44.0	44.9	44.4	-	4.2	4.2	5.8	5.1	-
Power transmission equipment, nec .....	3568	41.7	41.1	43.9	42.2	-	4.2	3.6	5.4	4.7	-
Office and computing machines .....	357	42.4	42.1	43.0	41.9	-	3.5	2.8	4.3	3.3	-
Electronic computing equipment .....	3573	42.2	42.3	42.6	41.7	-	3.4	2.9	4.0	3.1	-
Refrigeration and service machinery .....	358	41.6	41.6	42.6	42.1	-	3.4	3.1	3.6	3.3	-
Refrigeration and heating equipment .....	3585	42.0	41.9	42.8	42.9	-	3.5	3.3	3.7	3.8	-
Misc. machinery, except electrical .....	359	41.6	41.5	42.8	42.1	-	3.9	3.6	4.8	4.4	-
Carburetors, pistons, rings, and valves .....	3592	41.9	42.3	43.2	42.0	-	3.9	3.9	4.2	3.3	-
Machinery, except electrical, nec .....	3599	41.6	41.3	42.8	42.1	-	4.0	3.6	4.9	4.5	-
Electrical and electronic equipment .....	36	40.9	41.1	42.0	41.3	40.5	3.0	2.8	3.8	3.3	-
Electric distributing equipment .....	361	40.9	40.9	42.2	41.7	-	2.9	2.4	3.7	3.5	-
Transformers .....	3612	41.7	42.0	42.6	40.9	-	2.9	2.5	3.6	3.0	-
Switchgear and switchboard apparatus .....	3613	40.3	39.8	41.8	42.4	-	2.9	2.2	3.9	3.9	-
Electrical industrial apparatus .....	362	41.2	40.8	42.8	42.1	-	3.3	2.7	4.3	3.3	-
Motors and generators .....	3621	41.1	41.0	42.4	41.5	-	3.6	3.3	4.5	3.5	-
Industrial controls .....	3622	40.3	39.5	42.6	42.2	-	2.2	1.3	3.4	2.4	-
Household appliances .....	363	40.2	40.8	41.1	40.9	-	2.7	2.9	3.2	3.0	-
Household refrigerators and freezers .....	3632	40.6	40.6	42.0	40.0	-	3.1	2.7	4.6	2.4	-
Household laundry equipment .....	3633	41.2	42.0	40.7	42.5	-	2.7	1.9	2.2	3.0	-
Electric housewares and fans .....	3634	40.7	39.9	43.0	42.1	-	2.8	2.5	3.7	3.6	-
Electric lighting and wiring equipment .....	364	40.1	40.4	41.5	41.2	-	2.8	2.8	3.8	3.7	-
Electric lamps .....	3641	40.1	40.7	41.5	41.8	-	3.1	2.9	5.0	4.5	-
Current-carrying wiring devices .....	3643	40.0	40.5	41.5	41.1	-	2.8	2.6	3.7	3.5	-
Noncurrent-carrying wiring devices .....	3644	41.1	40.9	42.5	42.0	-	2.8	2.5	3.9	3.6	-
Residential lighting fixtures .....	3645	38.9	39.5	40.2	39.2	-	1.6	1.7	2.4	2.5	-
Radio and TV receiving equipment .....	365	40.8	41.1	41.5	40.2	-	2.5	2.3	2.9	2.2	-
Radio and TV receiving sets .....	3651	40.8	41.4	42.5	39.9	-	2.1	2.0	2.9	1.7	-
Communication equipment .....	366	41.4	41.8	42.2	41.5	-	2.7	2.6	3.4	2.8	-
Telephone and telegraph apparatus .....	3661	42.1	41.7	43.6	43.5	-	2.7	2.3	4.1	3.9	-
Radio and TV communication equipment .....	3662	41.2	41.8	41.7	40.7	-	2.7	2.7	3.1	2.5	-
Electronic components and accessories .....	367	40.8	40.8	41.8	41.0	-	3.2	3.0	4.0	3.6	-
Electronic tubes .....	3671-3	42.4	43.6	44.8	43.9	-	2.6	3.4	3.5	3.4	-
Semiconductors and related devices .....	3674	40.7	40.8	41.3	40.3	-	3.6	3.3	4.2	3.6	-
Electronic components, nec .....	3679	41.0	40.7	42.0	41.0	-	3.3	3.0	4.1	3.9	-
Misc. electrical equipment and supplies .....	369	41.6	41.5	43.3	41.9	-	3.5	3.6	4.3	3.6	-
Storage batteries .....	3691	41.4	39.3	43.9	41.8	-	3.6	2.6	4.6	4.1	-
Engine electrical equipment .....	3694	42.4	42.9	43.6	42.2	-	4.2	4.8	4.9	4.0	-

See footnotes at end of table.



ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED

C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Avg. 1987	Jan 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg. 1987	Jan. 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>
<b>Durable goods—Continued</b>											
<b>Machinery, except electrical—Continued</b>											
Construction and related machinery .....	353	\$11.16	\$10.93	\$11.29	\$11.23	-	\$474.30	\$452.50	\$504.66	\$487.38	-
Construction machinery .....	3531	12.49	12.09	12.73	12.68	-	542.07	508.99	588.49	575.67	-
Mining machinery .....	3532	11.37	11.11	11.42	11.28	-	483.23	468.84	503.62	482.78	-
Oil field machinery .....	3533	11.13	11.06	11.03	10.81	-	471.91	442.40	495.25	452.94	-
Conveyors and conveying equipment ..	3535	9.77	9.91	9.88	9.77	-	416.20	414.24	434.72	412.29	-
Industrial trucks and tractors .....	3537	9.76	9.69	10.00	9.91	-	396.26	388.57	433.00	412.26	-
Metalworking machinery .....	354	11.14	11.05	11.35	11.34	-	473.45	471.84	501.67	493.29	-
Machine tools, metal cutting types .....	3541	11.11	11.06	11.33	11.19	-	467.73	465.63	496.25	482.29	-
Machine tools, metal forming types .....	3542	11.44	11.36	11.76	11.68	-	485.06	468.03	531.55	517.42	-
Special dies, tools, jigs, and fixtures .....	3544	11.90	11.76	12.13	12.16	-	515.27	515.09	544.64	533.82	-
Machine tool accessories .....	3545	10.02	9.98	10.17	10.11	-	415.83	411.18	442.40	435.74	-
Power driven hand tools .....	3546	8.52	8.42	8.71	8.73	-	351.02	357.85	365.82	365.79	-
Special industry machinery .....	355	10.67	10.56	10.97	10.93	-	447.07	444.58	475.00	465.62	-
Food products machinery ..	3551	10.75	10.74	11.07	10.94	-	451.50	451.08	480.44	463.86	-
Textile machinery .....	3552	8.78	8.66	8.97	8.97	-	377.54	379.31	393.78	384.81	-
Printing trades machinery .....	3555	11.41	11.30	11.69	11.78	-	456.40	462.17	475.78	486.51	-
General industrial machinery .....	356	10.41	10.33	10.57	10.49	-	438.26	433.86	464.02	451.07	-
Pumps and pumping equipment .....	3561	11.06	10.99	11.22	11.19	-	473.37	465.98	500.41	485.65	-
Ball and roller bearings .....	3562	10.94	10.83	10.92	10.80	-	473.70	466.77	478.30	480.60	-
Air and gas compressors .....	3563	10.27	10.31	10.45	10.27	-	431.34	430.96	459.80	444.69	-
Blowers and fans .....	3564	9.25	9.24	9.42	9.43	-	379.25	378.84	406.94	381.92	-
Speed changers, drives, and gears .....	3566	10.13	10.33	10.31	10.22	-	433.67	454.52	462.92	453.77	-
Power transmission equipment, nec .....	3568	10.52	10.49	10.62	10.64	-	438.68	431.14	466.22	449.01	-
Office and computing machines .....	357	10.31	10.16	10.44	10.43	-	437.14	427.74	448.92	437.02	-
Electronic computing equipment .....	3573	10.33	10.21	10.47	10.43	-	435.93	431.88	448.02	434.93	-
Refrigeration and service machinery .....	358	10.41	10.40	10.65	10.52	-	433.06	432.64	453.69	442.89	-
Refrigeration and heating equipment .....	3585	10.63	10.63	10.84	10.75	-	446.46	445.40	463.95	461.18	-
Misc. machinery, except electrical .....	359	10.42	10.33	10.58	10.51	-	433.47	428.70	451.97	442.47	-
Carburetors, pistons, rings, and valves .....	3592	12.76	12.50	13.17	12.83	-	534.64	528.75	568.94	538.86	-
Machinery, except electrical, nec .....	3599	10.05	9.98	10.16	10.16	-	418.08	412.17	434.85	427.74	-
<b>Electrical and electronic equipment</b>											
Electric distributing equipment .....	361	9.90	9.84	10.05	10.01	\$10.01	404.91	404.42	422.10	413.41	\$405.41
Transformers .....	3612	9.23	9.13	9.39	9.40	-	377.51	373.42	396.26	391.98	-
Switchgear and switchboard apparatus .....	3613	9.07	9.01	9.19	9.23	-	378.22	378.42	391.49	377.51	-
Electrical industrial apparatus .....	362	9.37	9.25	9.59	9.55	-	377.61	368.15	400.86	404.92	-
Motors and generators .....	3621	9.80	9.69	9.99	9.79	-	403.76	395.35	427.57	412.16	-
Industrial controls .....	3622	9.71	9.62	10.00	9.83	-	399.08	394.42	424.00	407.85	-
Household appliances .....	363	9.67	9.54	9.81	9.52	-	389.70	376.83	417.91	401.74	-
Household refrigerators and freezers .....	3632	9.82	9.75	9.91	9.98	-	394.76	397.80	407.30	408.18	-
Household laundry equipment .....	3633	11.26	11.12	11.58	11.43	-	457.16	451.47	486.36	457.20	-
Electric housewares and fans .....	3634	11.71	11.47	12.02	12.15	-	482.45	481.74	489.21	516.38	-
Electric lighting and wiring equipment .....	364	7.32	7.35	7.37	7.34	-	297.92	293.27	316.91	309.01	-
Electric lamps .....	3641	9.12	9.06	9.22	9.27	-	365.71	366.02	382.63	381.92	-
Current-carrying wiring devices .....	3643	10.36	10.09	10.57	10.72	-	415.44	410.66	438.66	448.10	-
Noncurrent-carrying wiring devices .....	3644	9.60	8.53	8.69	8.57	-	344.00	345.47	360.64	352.23	-
Residential lighting fixtures .....	3645	9.39	9.32	9.43	9.42	-	385.93	381.19	400.78	395.64	-
Radio and TV receiving equipment .....	365	6.71	6.62	6.81	7.02	-	261.02	261.49	273.76	275.18	-
Radio and TV receiving sets .....	3651	9.29	9.40	9.44	9.53	-	378.03	386.34	391.76	383.11	-
Communication equipment .....	366	9.60	9.78	9.70	9.90	-	391.68	404.89	412.25	395.01	-
Telephone and telegraph apparatus .....	3661	11.75	11.58	11.98	11.87	-	486.45	483.21	505.58	492.61	-
Radio and TV communication equipment .....	3662	11.17	11.16	11.28	11.28	-	470.26	465.37	491.81	490.68	-
Electronic components and accessories .....	367	11.96	11.71	12.23	12.10	-	492.75	489.48	509.99	492.47	-
Electronic tubes .....	3671-3	8.95	8.89	9.12	9.09	-	365.16	362.71	381.22	372.69	-
Semiconductors and related devices .....	3674	11.05	10.92	11.13	11.12	-	468.52	476.11	498.62	488.17	-
Electronic components, nec .....	3679	10.69	10.59	10.97	11.03	-	435.08	432.07	453.06	444.51	-
Misc. electrical equipment and supplies .....	369	8.08	8.04	8.21	8.14	-	331.28	327.23	344.82	333.74	-
Storage batteries .....	3691	10.53	10.58	10.70	10.66	-	438.05	439.07	463.31	446.65	-
Engine electrical equipment .....	3694	11.18	10.92	11.55	11.38	-	462.85	429.16	507.05	475.68	-
		11.11	11.25	11.19	11.23	-	471.06	482.63	487.88	473.91	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers' on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Avg 1987	Jan. 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg 1987	Jan. 1987	Dec 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>
<b>Durable goods—Continued</b>											
Transportation equipment .....	37	42.1	42.5	42.7	42.2	41.9	4.3	4.3	4.6	4.3	-
Motor vehicles and equipment .....	371	42.3	43.1	42.9	42.4	42.3	4.3	4.7	4.4	4.4	-
Motor vehicles and car bodies .....	3711	41.8	42.8	41.5	40.9	-	4.0	4.5	3.6	3.8	-
Truck and bus bodies .....	3713	42.1	42.0	43.1	42.3	-	4.1	4.5	4.2	3.8	-
Motor vehicle parts and accessories .....	3714	43.0	43.8	44.4	44.0	-	4.8	5.0	5.4	5.3	-
Truck trailers .....	3715	40.9	40.4	42.0	39.3	-	3.0	2.4	3.4	2.2	-
Aircraft and parts .....	372	42.5	42.4	43.6	42.6	-	4.9	4.5	5.7	4.6	-
Aircraft .....	3721	42.2	41.8	43.1	42.4	-	4.4	3.8	5.1	4.5	-
Aircraft engines and engine parts .....	3724	42.5	43.1	43.9	42.9	-	5.0	5.2	6.0	4.6	-
Aircraft equipment, nec .....	3728	42.9	42.6	44.1	42.7	-	5.5	5.1	6.6	4.8	-
Ship and boat building and repairing .....	373	40.3	40.6	40.7	40.9	-	2.8	2.8	3.1	3.4	-
Ship building and repairing .....	3731	40.4	40.9	40.8	41.4	-	2.8	2.8	3.2	3.7	-
Boat building and repairing .....	3732	40.1	40.1	40.7	39.9	-	2.8	2.8	2.9	2.8	-
Railroad equipment .....	374	40.7	40.9	42.5	40.9	-	2.1	2.0	3.2	3.5	-
Guided missiles, space vehicles, and parts .....	376	42.4	42.9	43.7	43.8	-	4.2	3.9	4.9	4.7	-
Guided missiles and space vehicles .....	3761	42.4	43.1	43.4	43.8	-	4.2	4.1	4.7	4.6	-
Miscellaneous transportation equipment .....	379	39.9	40.8	39.8	38.5	-	3.5	4.5	3.1	2.6	-
Travel trailers and campers .....	3792	38.3	40.2	37.4	36.8	-	2.0	3.0	1.6	1.4	-
Instruments and related products .....	38	41.4	41.2	42.4	41.7	41.5	3.0	2.8	3.7	3.3	-
Engineering and scientific instruments .....	381	41.7	42.0	43.5	42.6	-	3.3	3.0	4.4	3.4	-
Measuring and controlling devices .....	382	41.3	41.0	42.3	41.8	-	2.7	2.5	3.5	3.1	-
Environmental controls .....	3822	40.2	40.8	40.8	40.9	-	2.9	3.3	3.3	3.5	-
Process control instruments .....	3823	42.7	41.4	45.4	43.8	-	3.3	2.4	4.5	3.9	-
Instruments to measure electricity .....	3825	40.6	40.6	41.2	41.6	-	2.3	2.3	3.2	2.5	-
Optical instruments and lenses .....	383	42.4	41.2	44.6	42.8	-	3.1	2.5	3.9	2.2	-
Medical instruments and supplies .....	384	40.9	40.6	42.2	41.1	-	3.1	2.8	3.9	3.4	-
Surgical and medical instruments .....	3841	41.2	41.0	42.4	41.0	-	3.1	3.0	3.6	2.9	-
Surgical appliances and supplies .....	3842	40.5	40.4	41.8	40.9	-	3.0	2.5	4.0	3.7	-
Ophthalmic goods .....	385	40.5	40.9	39.9	39.7	-	2.6	2.8	2.2	2.6	-
Photographic equipment and supplies .....	386	43.4	43.0	43.1	43.5	-	3.8	3.7	4.3	4.2	-
Watches, clocks, and watchcases .....	387	39.8	38.6	39.4	39.6	-	2.3	1.2	2.9	1.7	-
Miscellaneous manufacturing .....	39	39.3	39.5	39.8	38.7	38.4	2.6	2.4	2.8	2.3	-
Jewelry, silverware, and plated ware .....	391	38.5	38.6	39.7	37.6	-	2.4	2.4	3.2	1.6	-
Jewelry, precious metal .....	3911	37.7	37.0	39.5	37.1	-	2.1	1.6	3.4	1.5	-
Musical instruments .....	393	41.0	41.1	41.2	40.7	-	3.0	2.6	3.2	2.8	-
Toys and sporting goods .....	394	39.3	39.6	39.6	39.1	-	2.4	2.2	2.4	2.3	-
Dolls, games, toys, and children's vehicles .....	3942,4	38.6	38.8	38.0	38.7	-	2.3	2.1	1.9	2.1	-
Sporting and athletic goods, nec .....	3949	40.0	40.2	40.9	39.4	-	2.4	2.3	2.8	2.4	-
Pens, pencils, office, and art supplies .....	395	40.5	39.9	41.6	40.8	-	2.3	1.6	3.4	2.7	-
Costume jewelry and notions .....	396	37.2	38.7	37.1	36.8	-	3.1	3.5	2.3	1.8	-
Costume jewelry .....	3961	35.3	37.7	35.9	36.0	-	2.7	3.6	1.9	1.5	-
Miscellaneous manufactures .....	399	40.0	39.8	40.5	38.7	-	2.8	2.5	3.0	2.7	-
Signs and advertising displays .....	3993	39.6	39.7	39.8	38.3	-	2.7	2.5	3.1	2.5	-
<b>Nondurable goods</b>											
Food and kindred products .....	20	40.2	39.9	40.9	40.2	39.8	3.6	3.3	3.9	3.6	3.4
Meat products .....	201	40.2	39.8	41.1	40.5	39.6	4.1	3.6	4.3	4.1	-
Meat packing plants .....	2011	39.8	40.0	41.1	41.1	-	3.8	3.8	4.6	4.8	-
Sausages and other prepared meats .....	2013	41.7	43.2	43.2	42.6	-	4.8	5.6	5.6	5.8	-
Poultry dressing plants .....	2016	40.6	39.6	41.1	40.8	-	3.8	2.9	4.7	4.2	-
Dairy products .....	202	38.1	37.6	39.2	40.4	-	3.0	2.8	3.3	4.2	-
Cheese, natural and processed .....	2022	41.3	40.4	41.3	40.6	-	4.5	3.7	4.2	3.9	-
Fluid milk .....	2026	39.5	38.9	40.1	38.6	-	3.8	3.2	4.0	3.3	-
Preserved fruits and vegetables .....	203	42.4	41.5	42.0	41.8	-	5.0	4.3	4.6	4.7	-
Canned specialties .....	2032	39.2	39.0	40.0	38.9	-	4.0	3.1	3.5	3.2	-
Canned fruits and vegetables .....	2033	40.0	42.3	43.1	41.2	-	4.5	5.6	6.6	5.7	-
Frozen fruits and vegetables .....	2037	39.1	38.6	40.4	39.1	-	4.5	2.4	3.6	3.5	-
Grain mill products .....	204	38.1	38.1	36.4	36.6	-	3.8	3.1	2.6	2.6	-
Flour and other grain mill products .....	2041	44.1	44.3	45.2	45.1	-	6.0	5.7	6.4	6.4	-
Prepared feeds, nec .....	2048	47.4	46.9	47.7	45.9	-	7.0	5.6	7.6	6.2	-
Bakery products .....	205	43.5	43.8	43.7	44.0	-	6.0	5.9	6.4	6.6	-
Bread, cake, and related products .....	2051	39.9	38.8	40.4	39.4	-	3.9	3.3	4.1	3.8	-
Cookies and crackers .....	2052	38.9	37.8	39.2	37.9	-	4.0	3.3	3.9	3.6	-
		42.2	41.3	43.5	43.3	-	3.8	3.2	4.6	4.4	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers' on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Avg. 1987	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg 1987	Jan. 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>
<b>Durable goods—Continued</b>											
Transportation equipment .. .	37	\$12.96	\$12.93	\$13.26	\$13.22	\$13.20	\$545.62	\$549.53	\$566.20	\$557.88	\$553.08
Motor vehicles and equipment .. .	371	13.57	13.58	13.90	13.96	13.92	574.01	585.30	596.31	591.90	588.82
Motor vehicles and car bodies .. .	3711	15.36	15.27	15.87	16.13	-	642.05	653.56	658.61	659.72	-
Truck and bus bodies .. .	3713	11.52	11.66	11.79	11.88	-	484.99	489.72	508.15	502.52	-
Motor vehicle parts and accessories .. .	3714	12.74	12.69	13.04	13.06	-	547.82	555.82	578.98	574.64	-
Truck trailers .. .	3715	9.30	9.45	9.19	9.20	-	380.37	381.78	385.98	361.56	-
Aircraft and parts .. .	372	13.19	12.97	13.51	13.37	-	560.58	549.93	589.04	569.56	-
Aircraft .. .	3721	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	-	-	-	-	-	-
Aircraft engines and engine parts .. .	3724	\$13.33	\$13.16	\$13.85	\$13.56	-	566.53	567.20	608.02	581.72	-
Aircraft equipment, nec .. .	3728	12.26	11.93	12.48	12.29	-	525.95	508.22	550.37	524.78	-
Ship and boat building and repairing .. .	373	10.33	10.51	10.39	10.43	-	416.30	426.71	422.87	426.59	-
Ship building and repairing .. .	3731	11.57	11.67	11.61	11.64	-	467.43	477.30	473.69	481.90	-
Boat building and repairing .. .	3732	7.98	8.05	8.09	8.10	-	320.00	322.81	329.26	323.19	-
Railroad equipment .. .	374	12.17	12.26	12.56	12.57	-	495.32	501.43	533.80	514.11	-
Guided missiles, space vehicles, and parts .. .	376	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	-	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	-
Guided missiles and space vehicles .. .	3761	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	-	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	-
Miscellaneous transportation equipment .. .	379	\$10.57	\$10.91	\$10.51	\$10.24	-	\$421.74	\$445.13	\$418.30	\$394.24	-
Travel trailers and campers .. .	3792	8.62	9.05	8.52	8.47	-	330.15	363.81	318.65	311.70	-
<b>Instruments and related products</b>											
Engineering and scientific instruments .. .	381	10.69	10.44	10.84	10.88	-	445.77	438.48	471.54	463.49	-
Measuring and controlling devices .. .	382	9.60	9.49	9.79	9.82	-	396.48	389.09	414.12	410.48	-
Environmental controls .. .	3822	9.05	8.97	9.30	9.37	-	363.81	365.98	379.44	383.23	-
Process control instruments .. .	3823	9.50	9.44	9.66	9.62	-	405.65	390.82	438.56	421.36	-
Instruments to measure electricity .. .	3825	9.82	9.67	9.97	9.97	-	398.69	392.60	410.76	404.78	-
Optical instruments and lenses .. .	383	10.50	10.51	10.53	10.57	-	445.20	433.01	469.64	452.40	-
Medical instruments and supplies .. .	384	8.70	8.59	8.84	8.91	-	355.83	348.75	373.05	366.20	-
Surgical and medical instruments .. .	3841	8.80	8.70	9.01	9.05	-	362.56	356.70	382.02	371.05	-
Surgical appliances and supplies .. .	3842	8.59	8.48	8.67	8.76	-	347.90	342.59	362.41	358.28	-
Ophthalmic goods .. .	385	7.40	7.35	7.56	7.52	-	299.70	300.62	301.64	298.54	-
Photographic equipment and supplies .. .	386	13.19	13.03	13.36	13.34	-	572.45	560.29	575.82	580.29	-
Watches, clocks, and watchcases .. .	387	7.15	7.10	7.24	7.24	-	284.57	274.06	285.26	286.70	-
<b>Miscellaneous manufacturing</b>											
Jewelry, silverware, and plated ware .. .	391	8.34	8.20	8.54	8.48	-	321.09	316.52	339.04	318.85	-
Jewelry, precious metal .. .	3911	8.44	8.26	8.69	8.62	-	318.19	305.62	343.26	319.80	-
Musical instruments .. .	393	7.47	7.23	7.76	7.87	-	306.27	297.15	319.71	320.31	-
Toys and sporting goods .. .	394	7.15	7.11	7.32	7.33	-	281.00	281.56	289.87	286.60	-
Dolls, games, toys, and children's vehicles .. .	3942,4	6.94	7.00	7.17	7.21	-	267.88	271.60	272.46	279.03	-
Sporting and athletic goods, nec .. .	3949	7.32	7.19	7.42	7.42	-	292.80	289.04	303.48	292.35	-
Pens, pencils, office, and art supplies .. .	395	7.70	7.69	7.73	7.90	-	311.85	306.83	321.57	322.32	-
Costume jewelry and notions .. .	396	6.20	6.15	6.40	6.49	-	230.64	238.01	237.44	238.83	-
Costume jewelry .. .	3961	5.74	5.46	6.14	6.15	-	202.62	205.84	220.43	221.40	-
Miscellaneous manufactures .. .	399	8.54	8.48	8.71	8.76	-	341.60	337.50	352.76	339.01	-
Signs and advertising displays .. .	3993	8.89	8.91	8.92	9.01	-	352.04	353.73	355.02	345.08	-
<b>Nondurable goods</b>											
Food and kindred products .. .	20	9.16	9.09	9.30	9.32	9.31	368.23	362.69	380.37	374.66	370.54
Meat products .. .	201	8.92	8.90	9.05	9.06	9.05	358.58	354.22	371.96	366.93	358.38
Meat packing plants .. .	2011	7.43	7.40	7.51	7.52	-	295.71	296.00	308.66	309.07	-
Sausages and other prepared meats .. .	2013	8.37	8.41	8.43	8.40	-	349.03	363.31	364.18	357.84	-
Poultry dressing plants .. .	2016	8.81	8.66	8.83	8.89	-	357.69	342.94	362.91	362.71	-
Dairy products .. .	202	6.13	6.02	6.23	6.29	-	233.55	226.35	244.22	254.12	-
Cheese, natural and processed .. .	2022	9.65	9.55	9.76	9.81	-	398.55	385.82	403.09	398.29	-
Fluid milk .. .	2026	8.95	8.83	9.01	9.05	-	353.53	343.49	361.30	349.33	-
Preserved fruits and vegetables .. .	203	10.12	9.96	10.22	10.26	-	429.09	413.34	429.24	428.87	-
Canned specialties .. .	2032	8.28	8.52	8.58	8.57	-	324.58	332.28	343.20	333.37	-
Canned fruits and vegetables .. .	2033	10.30	10.45	10.62	10.57	-	412.00	442.04	457.72	435.48	-
Frozen fruits and vegetables .. .	2037	8.16	8.41	8.52	8.54	-	319.06	324.63	344.21	333.91	-
Grain mill products .. .	204	7.63	7.80	8.01	8.02	-	290.70	297.18	291.56	293.53	-
Flour and other grain mill products .. .	2041	10.76	10.63	11.05	11.02	-	474.52	470.91	499.46	497.00	-
Prepared feeds, nec .. .	2048	10.63	10.29	10.97	10.76	-	503.86	482.60	523.27	493.88	-
Bakery products .. .	205	8.36	8.26	8.58	8.64	-	363.66	361.79	374.95	380.16	-
Bread, cake, and related products .. .	2051	10.04	9.97	10.23	10.18	-	400.60	380.84	413.29	401.09	-
Cookies and crackers .. .	2052	10.00	9.89	10.19	10.15	-	389.00	373.84	399.45	384.69	-
		10.14	10.16	10.31	10.26	-	427.91	419.61	448.49	444.26	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers' on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Avg 1987	Jan 1987	Dec. 1987	Jan. 1988°	Feb. 1988°	Avg. 1987	Jan 1987	Dec 1987	Jan 1988°	Feb. 1988°
<b>Nondurable goods—Continued</b>											
<b>Food and kindred products—Continued</b>											
Sugar and confectionery products .....	206	40.5	40.5	42.3	41.0	-	3.3	3.4	4.0	3.7	-
Cane and beet sugar .....	2061-3	43.0	42.8	46.4	45.2	-	5.5	5.9	7.1	6.4	-
Confectionery products .....	2065	39.1	38.9	40.2	39.0	-	2.3	2.1	2.7	2.5	-
Fats and oils .....	207	42.0	42.1	44.0	44.1	-	5.1	4.9	5.6	6.0	-
Beverages .....	208	40.7	39.7	41.2	40.2	-	3.8	3.0	3.8	3.4	-
Malt beverages .....	2082	42.6	42.2	43.6	41.8	-	5.3	4.6	5.6	6.1	-
Bottled and canned soft drinks .....	2086	40.5	39.1	40.7	39.7	-	3.6	2.4	3.5	2.4	-
Misc. food and kindred products .....	209	38.7	37.3	39.3	37.7	-	3.9	3.3	3.8	3.2	-
Tobacco manufactures .....	21	38.5	37.1	40.5	40.5	41.6	2.4	1.0	3.3	4.2	-
Cigarettes .....	211	38.4	37.1	41.2	43.1	-	2.6	1.1	3.7	5.7	-
<b>Textile mill products</b>											
Weaving mills, cotton .....	221	43.0	42.5	42.7	41.7	-	5.9	5.4	5.7	5.3	-
Weaving mills, synthetics .....	222	42.3	41.7	42.9	42.5	-	4.6	4.2	4.8	4.6	-
Weaving and finishing mills, wool .....	223	41.8	43.3	42.0	42.9	-	2.3	4.7	3.9	3.1	-
Narrow fabric mills .....	224	40.7	40.5	41.8	41.7	-	3.5	2.9	3.7	3.8	-
Knitting mills .....	225	40.1	39.1	40.7	39.6	-	3.4	3.1	3.7	3.5	-
Women's hosiery, except socks .....	2251	38.8	37.9	39.4	38.9	-	3.0	2.9	3.1	3.6	-
Hosiery, nec .....	2252	39.2	37.1	39.9	39.8	-	2.7	2.0	3.0	3.4	-
Knit outerwear mills .....	2253	39.5	38.7	39.5	38.8	-	3.3	3.0	3.8	3.2	-
Knit underwear mills .....	2254	39.9	39.2	42.0	37.2	-	2.4	2.2	2.2	1.6	-
Circular knit fabric mills .....	2257	42.8	42.6	43.5	41.9	-	5.3	5.2	5.7	5.0	-
Textile finishing, except wool .....	226	42.3	40.8	42.9	42.2	-	4.9	4.1	5.0	4.9	-
Finishing plants, cotton .....	2261	42.6	41.1	42.6	41.5	-	4.7	4.0	4.6	4.9	-
Finishing plants, synthetics .....	2262	42.1	41.1	43.0	43.0	-	4.8	4.2	5.4	5.3	-
Floor covering mills .....	227	43.4	43.1	44.5	41.4	-	4.3	4.5	4.5	3.6	-
Yarn and thread mills .....	228	42.6	42.7	42.3	41.7	-	5.0	5.0	4.7	4.6	-
Yarn mills, except wool .....	2281	43.5	43.9	43.0	42.4	-	5.6	5.7	5.0	4.9	-
Throwing and winding mills .....	2282	38.2	38.0	38.2	38.6	-	2.7	3.0	2.7	2.4	-
Miscellaneous textile goods .....	229	43.0	43.5	44.0	43.3	-	4.6	4.6	5.4	5.0	-
<b>Apparel and other textile products</b>											
Men's and boys' suits and coats .....	231	35.8	35.8	36.9	36.7	-	1.1	1.1	1.7	1.6	-
Men's and boys' furnishings .....	232	37.3	36.9	37.5	36.9	-	1.6	1.4	1.8	1.7	-
Men's and boys' shirts and nightwear .....	2321	37.6	37.0	37.9	36.5	-	1.6	1.4	1.6	1.6	-
Men's and boys' separate trousers .....	2327	36.9	36.9	37.7	37.1	-	1.3	1.2	1.7	1.7	-
Men's and boys' work clothing .....	2328	36.9	36.8	36.5	37.0	-	1.6	1.4	1.7	1.9	-
Women's and misses' outerwear .....	233	35.6	35.7	36.2	35.5	-	1.6	1.6	1.8	1.7	-
Women's and misses' blouses and waists .....	2331	35.5	36.1	35.7	34.9	-	1.3	1.2	1.4	1.4	-
Women's and misses' dresses .....	2335	35.1	35.2	34.8	35.1	-	1.4	1.6	1.3	1.5	-
Women's and misses' suits and coats .....	2337	35.4	34.0	35.8	35.5	-	1.8	.8	1.7	1.6	-
Women's and misses' outerwear, nec .....	2339	36.0	36.2	37.1	35.8	-	1.8	1.8	2.2	2.0	-
Women's and children's undergarments .....	234	37.7	36.5	38.3	37.8	-	1.4	.9	1.9	1.8	-
Women's and children's underwear .....	2341	38.0	37.0	38.7	37.7	-	1.4	1.0	1.8	1.5	-
Brassieres and allied garments .....	2342	35.6	34.2	36.3	38.3	-	1.6	.6	2.3	3.2	-
Children's outerwear .....	236	37.3	36.9	38.6	37.5	-	1.7	1.6	2.1	2.3	-
Children's dresses and blouses .....	2361	36.2	36.6	37.0	35.5	-	1.4	1.6	1.8	1.9	-
Misc. apparel and accessories .....	238	38.5	37.5	39.0	37.1	-	2.1	1.5	2.3	2.0	-
Misc. fabricated textile products .....	239	38.1	38.9	39.6	37.9	-	3.0	3.1	3.1	2.4	-
Curtains and draperies .....	2391	37.3	37.1	36.8	33.7	-	1.6	1.1	1.3	.3	-
House furnishings, nec .....	2392	39.1	37.8	39.4	37.9	-	3.0	2.0	2.9	2.5	-
Automotive and apparel trimmings .....	2396	41.3	41.7	42.5	40.5	-	5.6	6.8	5.8	4.6	-
<b>Paper and allied products</b>											
Paper and pulp mills .....	261,2,6	45.6	45.1	45.9	45.4	-	6.7	6.2	6.7	6.2	-
Paper mills, except building paper .....	262	45.8	45.2	46.1	45.4	-	6.9	6.4	6.9	6.4	-
Paperboard mills .....	263	44.1	44.1	44.4	44.2	-	7.3	7.0	6.6	6.4	-
Misc. converted paper products .....	264	42.2	42.6	43.0	42.6	-	3.9	3.9	4.4	4.3	-
Paper coating and glazing .....	2641	44.2	44.7	45.0	43.8	-	4.3	4.3	4.7	4.0	-
Envelopes .....	2642	41.7	42.0	42.5	42.2	-	3.2	3.4	4.0	4.2	-
Bags, except textile bags .....	2643	42.0	43.2	43.1	43.0	-	4.3	4.3	5.2	5.1	-
Paperboard containers and boxes .....	265	42.5	42.6	43.6	42.8	-	4.5	4.3	5.0	4.6	-
Folding paperboard boxes .....	2651	42.4	42.5	43.4	43.4	-	4.5	4.2	5.2	5.2	-
Corrugated and solid fiber boxes .....	2653	43.1	43.5	44.2	43.4	-	4.9	4.7	5.3	4.7	-
Sanitary food containers .....	2654	41.7	40.8	43.8	42.6	-	4.2	3.7	4.7	4.5	-

See footnotes at end of table.



**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers' on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings					
		Avg 1987	Jan. 1987	Dec 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>	Avg. 1987	Jan. 1987	Dec 1987	Jan 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	
<b>Nondurable goods—Continued</b>												
<b>Food and kindred products—Continued</b>												
Sugar and confectionery products .....	206	\$9 15	\$8.89	\$9 08	\$9.26	-	\$370 58	\$360.05	\$384.08	\$379 66	-	
Cane and beet sugar .....	2061-3	10 44	10.01	10.05	10.15	-	448 92	428 43	466.32	458 78	-	
Confectionery products .....	2065	7.95	7.66	7.94	8 17	-	310.85	297 97	319.19	318 63	-	
Fats and oils .....	207	9.22	8.91	9.18	9 17	-	387.24	375.11	403 92	404 40	-	
Beverages .....	208	11.88	11.77	12.00	11.96	-	483 52	467.27	494 40	480 79	-	
Malt beverages .....	2082	16.61	16.51	16.64	16.94	-	707.59	696.72	725.50	708 09	-	
Bottled and canned soft drinks .....	2086	9 44	9.19	9 45	9.39	-	382.32	359.33	384.62	372.78	-	
Misc. food and kindred products .....	209	8 25	8.29	8.41	8 42	-	319 28	309.22	330.51	317.43	-	
<b>Tobacco manufactures</b>												
Cigarettes .....	211	13 81	12.97	13.56	14.07	\$14.23	531.69	481.19	549 18	569 84	\$591.97	
		16.70	15 79	17.03	17.27	-	641.28	585.81	701 64	744.34	-	
<b>Textile mill products ...</b>												
Weaving mills, cotton .....	221	7.18	7.10	7.33	7.38	7.36	300 84	293.94	310 06	305.53	301.76	
Weaving mills, synthetics .....	222	7.53	7.37	7.70	7.71	-	323.79	313 23	328.79	321.51	-	
Weaving and finishing mills, wool .....	223	7.72	7.62	7 85	7.91	-	326.56	317.75	336.77	336.18	-	
Narrow fabric mills .....	224	7 65	7.64	7.75	7.75	-	319 77	330 81	325 50	332.48	-	
Knitting mills .....	225	6.73	6.67	6.73	6.77	-	273.91	270 14	281.31	282 31	-	
Women's hosiery, except socks .....	2251	225	6.54	6.50	6.66	6.76	-	262.25	254.15	271 06	267.70	-
Hosiery, nec .....	2252	2251	6.43	6.37	6 60	6 76	-	249.48	241.42	260.04	262 96	-
Knit outerwear mills .....	2253	2252	6.21	6.12	6.28	6.38	-	243.43	227 05	250 57	253.92	-
Knit underwear mills .....	2254	2253	6.46	6.46	6.60	6.63	-	255.17	250 00	260.70	257.24	-
Circular knit fabric mills .....	2257	2254	6.14	6.08	6.20	6 44	-	244 99	238.34	260.40	239 57	-
Textile finishing, except wool .....	226	2257	7.20	7.16	7.36	7.39	-	308.16	305 02	320 16	309.64	-
Finishing plants, cotton .....	2261	226	7 46	7.34	7 61	7.60	-	315.56	299.47	326.47	320 72	-
Finishing plants, synthetics .....	2262	2261	7.46	7.34	7.61	7.63	-	317 80	301.67	324 19	316.65	-
Floor covering mills .....	227	2262	7.72	7.63	7 87	7 87	-	325.01	313.59	338.41	338 41	-
Yarn and thread mills .....	228	227	7 54	7.54	7 65	7.69	-	327 24	324.97	340 43	318.37	-
Yarn mills, except wool .....	2281	228	6.79	6.68	6 96	7.01	-	289.25	285.24	294.41	292 32	-
Throwing and winding mills .....	2282	2281	6 80	6.72	6.93	6.99	-	295 80	295.01	297.99	296 38	-
Miscellaneous textile goods .....	229	2282	6.76	6.55	7.11	7 11	-	258.23	248.90	271 60	274.45	-
		229	8.16	8 15	8.35	8.36	-	350.88	354.53	367 40	361 99	-
<b>Apparel and other textile products</b>												
Men's and boys' suits and coats .....	231	23	5 95	5 94	6.01	6.04	6.04	220 75	218.59	225.98	221.67	221.67
Men's and boys' furnishings .....	232	231	6.74	6.66	6 93	6.96	-	241.29	238 43	255.72	255.43	-
Men's and boys' shirts and nightwear .....	2321	232	5.46	5 46	5.51	5.60	-	203.66	201.47	206.63	206 64	-
Men's and boys' separate trousers .....	2327	2321	5.27	5.27	5.37	5.48	-	198.15	194.99	203 52	200 02	-
Men's and boys' work clothing .....	2328	2327	5.32	5.29	5 44	5.45	-	196.31	195.20	205.09	202 20	-
Women's and misses' outerwear .....	233	2328	5.53	5.59	5.51	5 61	-	204.06	205 71	201 12	207.57	-
Women's and misses' blouses and waists .....	2331	233	5 74	5.67	5.76	5.78	-	204 34	202.42	208.51	205 19	-
Women's and misses' dresses .....	2335	2331	5.05	5.04	5.09	5.12	-	179.28	181 94	181 36	178.69	-
Women's and misses' suits and coats .....	2337	2335	6.06	5.89	6.13	6.07	-	212.71	207.33	213.32	213 06	-
Women's and misses' outerwear, nec .....	2339	2337	6.56	6 46	6.55	6.54	-	232 22	219 64	234.49	232 17	-
Women's and children's undergarments .....	234	2339	5 59	5.58	5 62	5.67	-	201.24	202.00	208 50	202.99	-
Women's and children's underwear .....	2341	234	5 51	5.46	5.58	5 67	-	207.73	199.29	213.71	214 33	-
Brassieres and allied garments .....	2342	2341	5.34	5 30	5.39	5.45	-	202.92	196 10	208 59	205.47	-
Children's outerwear .....	236	2342	6.48	6.36	6.71	6.87	-	230.69	217.51	243.57	263 12	-
Children's dresses and blouses .....	2361	236	5.29	5.20	5.39	5.45	-	197 32	191.88	208.05	204.38	-
Misc. apparel and accessories .....	238	2361	5 17	5.06	5 34	5.40	-	187.15	185 20	197 58	191.70	-
Misc. fabricated textile products .....	239	238	5.74	5.70	5.86	5.85	-	220 99	213.75	228.54	217 04	-
Curtains and draperies .....	2391	239	7 22	7.38	7.30	7.26	-	282.30	28 08	289 08	275.15	-
House furnishings, nec .....	2392	2391	5.76	5.65	5.82	5 83	-	214.85	209.62	214 18	196 47	-
Automotive and apparel trimmings .....	2396	2392	6.10	6.04	6.13	6.23	-	238 51	228.31	241.52	236.12	-
		2396	11.20	11.67	11.50	11.32	-	462.56	486 64	488 75	458 46	-
<b>Paper and allied products ...</b>												
Paper and pulp mills .....	261,2,6	26	11 42	11.26	11.54	11.50	11.49	495 63	488 68	508 91	501.40	491.77
Paper: mills, except building paper .....	262	261,2,6	14.00	13.73	14.14	14.04	-	638.40	619.22	649.03	637.42	-
Paperboard mills .....	263	262	14.09	13.81	14.25	14.13	-	645 32	624.21	656.93	641.50	-
Misc. converted paper products .....	264	263	14.29	13.92	14.33	14.27	-	630.19	613.87	636 25	630.73	-
Paper coating and glazing .....	2641	264	9.91	9.81	10 09	10.08	-	418.20	417.91	433.87	429 41	-
Envelopes .....	2642	2641	11.06	11.00	11.25	11.16	-	488 85	491.70	506.25	488.81	-
Bags, except textile bags .....	2643	2642	9.24	9.10	9.55	9.57	-	385.31	382.20	405.88	403 85	-
Paperboard containers and boxes .....	265	2643	9.19	9.03	9.29	9.41	-	385.98	390.10	400.40	404.63	-
Folding paperboard boxes .....	2651	265	9.70	9.61	9.82	9.80	-	412.25	409.39	428.15	419.44	-
Corrugated and solid fiber boxes .....	2653	2651	10.11	9 77	10 25	10 17	-	428.66	423.73	444.85	441.38	-
Sanitary food containers .....	2654	2653	9.90	9.82	10.03	9.96	-	426.69	427.17	443 33	432.26	-
		2654	9.39	9.19	9 59	9.58	-	391.56	374.95	420.04	408 11	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Avg 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>o</sup>	Feb. 1988 <sup>o</sup>	Avg. 1987	Jan 1987	Dec. 1987	Jan. 1988 <sup>o</sup>	Feb 1988 <sup>o</sup>
<b>Nondurable goods—Continued</b>											
Printing and publishing . . . . .	27	38.0	37.6	38.7	37.7	37.6	3.1	2.7	3.4	2.9	-
Newspapers . . . . .	271	33.7	32.7	34.3	32.7	-	1.6	1.2	1.8	1.0	-
Periodicals . . . . .	272	38.9	38.0	38.7	38.5	-	3.4	2.6	3.7	3.4	-
Books . . . . .	273	38.6	39.2	39.6	38.7	-	3.6	3.9	3.6	3.4	-
Book publishing . . . . .	2731	38.3	38.2	39.2	38.8	-	3.2	3.3	3.0	3.0	-
Book printing . . . . .	2732	39.1	40.9	40.3	38.5	-	4.4	4.9	4.5	3.9	-
Miscellaneous publishing . . . . .	274	36.4	35.8	37.3	37.0	-	2.6	2.4	2.9	2.9	-
Commercial printing . . . . .	275	39.5	39.2	39.8	39.1	-	3.6	3.2	3.8	3.4	-
Commercial printing, letterpress . . . . .	2751	39.1	38.8	39.5	38.9	-	3.0	2.9	3.4	3.0	-
Commercial printing, lithographic . . . . .	2752	37.4	39.1	39.6	38.9	-	3.7	3.3	3.8	3.4	-
Manifold business forms . . . . .	276	41.4	41.6	44.3	42.2	-	3.8	3.7	5.8	4.4	-
Blankbooks and bookbinding . . . . .	278	38.6	38.0	40.6	39.2	-	2.6	2.0	3.7	3.0	-
Printing trade services . . . . .	279	38.3	38.1	39.1	38.2	-	3.6	3.4	4.1	3.9	-
Chemicals and allied products . . . . .	28	42.3	42.2	43.2	42.6	42.5	4.0	3.8	4.2	4.0	-
Industrial inorganic chemicals . . . . .	281	42.6	42.3	43.6	43.5	-	4.0	3.6	4.5	4.2	-
Industrial inorganic chemicals, nec . . . . .	2819	42.9	42.9	43.5	43.9	-	3.9	3.6	4.1	4.1	-
Plastics materials and synthetics . . . . .	282	43.1	43.1	43.6	43.5	-	4.4	4.3	4.6	4.7	-
Plastics materials and resins . . . . .	2821	43.7	43.9	44.6	44.4	-	4.8	4.6	5.3	5.2	-
Organic fibers, noncellulosic . . . . .	2824	42.7	42.7	43.1	42.9	-	4.0	4.1	3.9	4.4	-
Drugs . . . . .	283	41.5	42.3	42.0	41.6	-	3.1	3.2	3.5	3.3	-
Pharmaceutical preparations . . . . .	2834	41.3	41.7	42.1	41.0	-	3.1	3.1	3.6	3.2	-
Soap, cleaners, and toilet goods . . . . .	284	41.1	40.7	42.5	40.9	-	3.3	3.2	3.5	3.1	-
Soap and other detergents . . . . .	2841	43.8	43.4	45.2	43.3	-	5.3	4.9	5.6	4.8	-
Polishing, sanitation, and finishing preparations . . . . .	2842,3	41.5	40.9	42.9	41.7	-	3.0	2.6	3.5	3.4	-
Toilet preparations . . . . .	2844	39.5	39.0	40.9	39.3	-	2.3	2.5	2.4	2.0	-
Paints and allied products . . . . .	285	41.7	41.1	42.0	42.1	-	3.6	3.5	2.9	3.7	-
Industrial organic chemicals . . . . .	286	44.1	43.5	45.3	44.7	-	5.4	4.8	5.8	5.4	-
Cyclic crudes and intermediates . . . . .	2865	43.2	43.3	44.5	43.3	-	5.5	5.2	6.1	5.1	-
Gum, wood, and industrial organic chemicals, nec . . . . .	2861,9	44.3	43.5	45.5	45.1	-	5.3	4.7	5.7	5.5	-
Agricultural chemicals . . . . .	287	42.8	42.7	43.6	43.5	-	4.6	4.8	4.8	4.8	-
Miscellaneous chemical products . . . . .	289	41.4	40.9	42.1	41.1	-	3.4	3.1	3.6	3.2	-
Petroleum and coal products . . . . .	29	43.9	44.3	44.3	44.1	43.6	5.0	4.5	5.0	5.3	-
Petroleum refining . . . . .	291	43.8	44.6	44.2	44.5	-	4.5	4.2	4.5	5.3	-
Paving and roofing materials . . . . .	295	45.2	44.1	45.4	43.5	-	7.8	6.7	7.5	5.1	-
Rubber and misc. plastics products . . . . .	30	41.6	41.6	42.5	41.9	41.4	4.0	3.8	4.5	4.2	-
Tires and inner tubes . . . . .	301	44.0	43.9	45.4	45.3	-	5.4	4.8	6.4	6.1	-
Rubber and plastics footwear . . . . .	302	41.7	40.9	44.1	42.5	-	2.5	2.2	3.8	2.9	-
Reclaimed rubber, and rubber and plastics hose and belting . . . . .	303,4	42.4	41.1	45.1	45.1	-	4.0	2.9	5.3	4.7	-
Fabricated rubber products, nec . . . . .	306	41.4	41.8	42.9	41.9	-	3.6	3.5	4.4	4.0	-
Miscellaneous plastics products . . . . .	307	41.3	41.3	41.9	41.3	-	4.0	3.8	4.3	4.0	-
Leather and leather products . . . . .	31	38.1	37.3	38.5	37.6	36.7	2.1	1.7	2.1	1.8	-
Leather tanning and finishing . . . . .	311	41.5	40.8	41.6	40.7	-	4.2	3.5	4.6	4.2	-
Footwear, except rubber . . . . .	314	37.8	36.8	38.3	37.1	-	1.9	1.5	1.8	1.6	-
Men's footwear, except athletic . . . . .	3143	37.9	37.4	38.4	37.0	-	1.8	1.4	1.8	1.5	-
Women's footwear, except athletic . . . . .	3144	37.8	36.6	38.1	37.0	-	2.2	2.0	1.7	1.9	-
Luggage . . . . .	316	39.4	37.5	40.1	40.4	-	2.2	1.1	2.9	2.2	-
Handbags and personal leather goods . . . . .	317	36.8	36.9	36.9	36.6	-	2.1	1.9	1.9	1.8	-
Transportation and public utilities . . . . .		39.1	38.5	39.2	38.9	38.9	-	-	-	-	-
Railroad transportation:											
Class I railroads <sup>a</sup> . . . . .	4011	43.0	42.4	42.5	40.9	-	-	-	-	-	-
Local and interurban passenger transit . . . . .	41	34.3	33.8	34.1	34.1	-	-	-	-	-	-
Local and suburban transportation . . . . .	411	38.7	38.9	38.4	39.0	-	-	-	-	-	-
Intercity highway transportation . . . . .	413	39.7	39.1	39.0	39.0	-	-	-	-	-	-
Trucking and warehousing . . . . .	42	38.4	37.4	38.6	37.8	-	-	-	-	-	-
Trucking and trucking terminals . . . . .	421,3	38.4	37.3	38.5	37.8	-	-	-	-	-	-
Public warehousing . . . . .	422	39.0	38.0	40.0	38.3	-	-	-	-	-	-
Pipe lines, except natural gas . . . . .	46	41.9	42.1	43.5	42.2	-	-	-	-	-	-

See footnotes at end of table.



**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Avg. 1987	Jan. 1987	Dec 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg 1987	Jan. 1987	Dec 1987	Jan. 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>
<b>Nondurable goods—Continued</b>											
Printing and publishing .....	27	\$10.28	\$10.14	\$10.44	\$10.41	\$10.44	\$390.64	\$381.26	\$404.03	\$392.46	\$392.54
Newspapers .....	271	10.15	10.07	10.23	10.32	-	342.06	329.29	350.89	337.46	-
Periodicals .....	272	10.76	10.63	10.76	10.75	-	418.56	403.94	416.41	413.88	-
Books .....	273	9.32	9.31	9.34	9.41	-	359.75	364.95	369.86	364.17	-
Book publishing .....	2731	8.87	8.79	8.90	9.05	-	339.72	335.78	348.88	351.14	-
Book printing .....	2732	10.05	10.13	10.03	9.98	-	392.96	414.32	404.21	384.23	-
Miscellaneous publishing .....	274	9.48	9.19	9.76	9.79	-	445.07	329.00	364.05	362.23	-
Commercial printing .....	275	10.59	10.41	10.79	10.71	-	418.31	408.07	429.44	418.76	-
Commercial printing, letterpress .....	2751	10.18	10.09	10.43	10.37	-	398.04	391.49	411.99	403.39	-
Commercial printing, lithographic .....	2752	10.73	10.52	10.88	10.83	-	422.76	411.33	430.85	421.29	-
Manifold business forms .....	276	10.74	10.60	11.06	10.77	-	444.64	440.96	489.96	454.49	-
Blankbooks and bookbinding .....	278	8.18	8.06	8.43	8.28	-	315.75	306.28	342.26	324.58	-
Printing trade services .....	279	12.48	12.38	12.65	12.84	-	477.98	471.68	494.62	490.49	-
Chemicals and allied products .....	28	12.37	12.18	12.62	12.54	12.49	523.25	514.00	545.18	534.20	530.83
Industrial inorganic chemicals .....	281	13.62	13.34	13.86	13.81	-	580.21	564.28	604.30	600.74	-
Industrial inorganic chemicals, nec .....	2819	13.70	13.41	13.86	13.82	-	587.73	575.29	602.91	606.70	-
Plastics materials and synthetics .....	282	12.52	12.34	12.73	12.60	-	539.61	531.85	555.03	548.10	-
Plastics materials and resins .....	2821	13.52	13.28	13.74	13.53	-	590.82	582.99	612.80	600.73	-
Organic fibers, noncellulosic .....	2824	11.97	11.87	12.09	12.10	-	511.12	506.85	521.08	519.09	-
Drugs .....	283	11.64	11.29	11.97	11.85	-	483.06	477.57	502.74	492.96	-
Pharmaceutical preparations .....	2834	11.31	11.07	11.60	11.57	-	467.10	461.62	488.36	474.37	-
Soap, cleaners, and toilet goods .....	284	10.87	10.91	11.09	11.06	-	446.76	444.04	471.33	452.35	-
Soap and other detergents .....	2841	14.11	13.91	14.48	14.38	-	618.02	603.69	654.50	622.65	-
Polishing, sanitation, and finishing preparations .....	2842,3	10.00	10.04	10.14	10.18	-	415.00	410.64	435.01	424.51	-
Toilet preparations .....	2844	9.30	9.39	9.52	9.52	-	367.35	366.21	389.37	374.14	-
Paints and allied products .....	285	10.82	10.74	10.95	11.12	-	451.19	441.41	459.90	468.15	-
Industrial organic chemicals .....	286	14.88	14.55	15.02	14.80	-	656.21	632.93	680.41	661.56	-
Cyclic crudes and intermediates .....	2865	14.76	14.44	15.24	14.65	-	637.63	625.25	678.18	634.35	-
Gum, wood, and industrial organic chemicals, nec .....	2861,9	14.92	14.59	14.96	14.84	-	660.96	634.67	680.68	669.28	-
Agricultural chemicals .....	287	11.98	11.93	12.49	12.41	-	512.74	509.41	544.56	539.84	-
Miscellaneous chemical products .....	289	11.38	11.19	11.60	11.52	-	471.13	457.67	488.36	473.47	-
Petroleum and coal products .....	29	14.57	14.57	14.72	14.91	14.89	639.62	645.45	652.10	657.53	649.20
Petroleum refining .....	291	15.72	15.65	15.75	15.94	-	688.54	697.99	696.15	709.33	-
Paving and roofing materials .....	295	11.48	11.26	11.76	11.54	-	518.90	496.57	533.90	501.99	-
Rubber and misc. plastics products .....	30	8.88	8.83	9.00	8.97	8.97	369.41	367.33	382.50	375.84	371.36
Tires and inner tubes .....	301	14.03	13.91	14.17	14.25	-	617.32	610.65	643.32	645.53	-
Rubber and plastics footwear .....	302	6.03	5.94	6.20	6.14	-	251.45	242.95	273.42	260.95	-
Reclaimed rubber, and rubber and plastics hose and belting .....	303,4	8.94	8.92	9.00	8.95	-	379.06	366.61	405.90	403.65	-
Fabricated rubber products, nec .....	306	8.60	8.49	8.82	8.77	-	356.04	354.88	378.38	367.46	-
Miscellaneous plastics products .....	307	8.26	8.19	8.39	8.32	-	341.14	338.25	351.54	343.62	-
Leather and leather products .....	31	6.06	6.04	6.11	6.11	6.16	230.89	225.29	235.24	229.74	226.07
Leather tanning and finishing .....	311	8.14	7.90	8.28	8.30	-	337.81	322.32	344.45	337.81	-
Footwear, except rubber .....	314	5.76	5.77	5.87	5.88	-	217.73	212.34	224.82	218.15	-
Men's footwear, except athletic .....	3143	6.16	6.19	6.21	6.28	-	233.46	231.51	238.46	232.36	-
Women's footwear, except athletic .....	3144	5.42	5.43	5.57	5.55	-	204.88	198.74	212.22	205.35	-
Luggage .....	316	6.37	6.23	6.42	6.36	-	250.98	233.63	257.44	256.94	-
Handbags and personal leather goods .....	317	5.82	5.80	5.66	5.61	-	214.18	214.02	208.85	205.33	-
Transportation and public utilities .....		12.01	11.89	12.17	12.12	12.14	469.59	457.77	477.06	471.47	472.25
Railroad transportation:											
Class I railroads <sup>4</sup> .....	4011	14.26	14.10	14.37	14.20	-	613.18	597.84	610.73	580.78	-
Local and interurban passenger transit .....	41	8.30	8.15	8.29	8.35	-	284.69	275.47	282.69	284.74	-
Local and suburban transportation .....	411	8.89	8.71	9.00	8.99	-	344.04	338.82	345.60	350.61	-
Intercity highway transportation .....	413	11.67	11.80	11.40	11.53	-	463.30	461.38	444.60	449.67	-
Trucking and warehousing .....	42	10.81	10.70	10.96	10.87	-	415.10	400.18	423.06	410.89	-
Trucking and trucking terminals .....	421,3	11.00	10.90	11.16	11.06	-	422.40	406.57	429.66	418.07	-
Public warehousing .....	422	8.29	8.17	8.44	8.55	-	323.31	310.46	337.60	327.47	-
Pipe lines, except natural gas .....	46	15.38	15.37	15.78	15.78	-	644.42	647.08	686.43	665.92	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Avg 1927	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>	Avg. 1987	Jan 1987	Dec. 1987	Jan. 1988 <sup>c</sup>	Feb. 1988 <sup>b</sup>
<b>Transportation and public utilities—Continued</b>											
Communication . . . . .	48	40.0	39.7	40.1	40.1	-	-	-	-	-	-
Telephone communication .. . . .	481	41.3	40.9	41.4	41.3	-	-	-	-	-	-
Radio and television broadcasting .. . . .	483	36.3	36.4	36.1	36.5	-	-	-	-	-	-
<b>Electric, gas, and sanitary services</b>											
Electric services . . . . .	49	41.5	41.5	41.8	41.7	-	-	-	-	-	-
Electric services . . . . .	491	41.2	41.5	41.5	41.6	-	-	-	-	-	-
Gas production and distribution . . . . .	492	40.8	41.4	41.2	41.4	-	-	-	-	-	-
Combination utility services . . . . .	493	42.4	42.0	43.2	42.9	-	-	-	-	-	-
Sanitary services . . . . .	495	42.3	41.5	41.7	40.4	-	-	-	-	-	-
<b>Wholesale trade . . . . .</b>		<b>38.2</b>	<b>38.1</b>	<b>38.3</b>	<b>38.0</b>	<b>37.9</b>	-	-	-	-	-
<b>Durable goods</b>											
Durable goods . . . . .	50	38.7	38.6	38.9	38.5	-	-	-	-	-	-
Motor vehicles and automotive equipment . . . . .	501	38.3	38.2	38.7	38.2	-	-	-	-	-	-
Furniture and home furnishings . . . . .	502	37.3	37.0	38.1	37.8	-	-	-	-	-	-
Lumber and construction materials . . . . .	503	39.4	38.8	39.4	38.2	-	-	-	-	-	-
Sporting goods, toys, and hobby goods . . . . .	504	36.4	36.7	36.3	35.5	-	-	-	-	-	-
Metals and minerals, except petroleum . . . . .	505	40.7	40.5	41.8	41.1	-	-	-	-	-	-
Electrical goods . . . . .	506	38.4	38.7	38.4	38.2	-	-	-	-	-	-
Hardware, plumbing, and heating equipment . . . . .	507	38.4	38.0	38.5	38.5	-	-	-	-	-	-
Machinery, equipment, and supplies . . . . .	508	39.1	38.9	39.2	39.0	-	-	-	-	-	-
Miscellaneous durable goods . . . . .	509	37.9	37.6	38.1	37.2	-	-	-	-	-	-
<b>Nondurable goods</b>											
Nondurable goods . . . . .	51	37.5	37.4	37.6	37.2	-	-	-	-	-	-
Paper and paper products . . . . .	511	37.1	37.1	37.4	36.7	-	-	-	-	-	-
Drugs, proprietaries, and sundries . . . . .	512	37.4	37.5	37.9	37.6	-	-	-	-	-	-
Apparel, piece goods, and notions . . . . .	513	36.8	36.3	37.5	36.9	-	-	-	-	-	-
Groceries and related products . . . . .	514	38.0	37.7	38.1	37.8	-	-	-	-	-	-
Chemicals and allied products . . . . .	516	39.1	39.1	39.3	39.1	-	-	-	-	-	-
Petroleum and petroleum products . . . . .	517	39.0	39.4	38.8	39.3	-	-	-	-	-	-
Beer, wine, and distilled beverages . . . . .	518	35.7	35.7	35.6	35.0	-	-	-	-	-	-
Miscellaneous nondurable goods . . . . .	519	36.9	36.7	36.8	36.3	-	-	-	-	-	-
<b>Retail trade . . . . .</b>		<b>29.3</b>	<b>28.3</b>	<b>29.3</b>	<b>28.3</b>	<b>28.6</b>	-	-	-	-	-
<b>Building materials and garden supplies</b>											
Building materials and garden supplies . . . . .	52	36.7	36.2	36.4	35.8	-	-	-	-	-	-
Lumber and other building materials . . . . .	521	38.6	38.1	38.3	37.5	-	-	-	-	-	-
Hardware stores . . . . .	525	33.2	32.5	33.3	32.7	-	-	-	-	-	-
<b>General merchandise stores</b>											
General merchandise stores . . . . .	53	28.1	26.7	28.6	25.7	-	-	-	-	-	-
Department stores . . . . .	531	27.9	26.4	28.2	25.2	-	-	-	-	-	-
Variety stores . . . . .	533	29.2	28.4	31.0	28.1	-	-	-	-	-	-
Misc. general merchandise stores . . . . .	539	30.1	28.3	31.4	29.0	-	-	-	-	-	-
<b>Food stores</b>											
Food stores . . . . .	54	30.1	29.1	29.9	29.7	-	-	-	-	-	-
Grocery stores . . . . .	541	30.4	29.4	30.0	29.8	-	-	-	-	-	-
Retail bakeries . . . . .	546	27.6	26.0	28.4	27.4	-	-	-	-	-	-
<b>Automotive dealers and service stations</b>											
Automotive dealers and service stations . . . . .	55	36.6	36.2	36.4	36.3	-	-	-	-	-	-
New and used car dealers . . . . .	551,2	37.4	37.1	37.3	37.3	-	-	-	-	-	-
Auto and home supply stores . . . . .	553	39.2	38.8	38.5	38.3	-	-	-	-	-	-
Gasoline service stations . . . . .	554	34.2	33.6	33.9	34.1	-	-	-	-	-	-
<b>Apparel and accessory stores</b>											
Apparel and accessory stores . . . . .	56	26.9	25.5	27.8	25.7	-	-	-	-	-	-
Men's and boys' clothing and furnishings . . . . .	561	29.7	29.1	30.5	29.2	-	-	-	-	-	-
Women's ready-to-wear stores . . . . .	562	25.6	24.5	26.0	24.1	-	-	-	-	-	-
Family clothing stores . . . . .	565	27.1	24.9	28.3	25.5	-	-	-	-	-	-
Shoe stores . . . . .	566	27.9	26.7	28.6	26.8	-	-	-	-	-	-
<b>Furniture and home furnishings stores</b>											
Furniture and home furnishings stores . . . . .	57	33.1	32.8	33.6	32.5	-	-	-	-	-	-
Furniture and home furnishings stores . . . . .	571	33.0	32.4	33.5	32.5	-	-	-	-	-	-
Household appliance stores . . . . .	572	33.9	33.5	34.0	33.3	-	-	-	-	-	-
Radio, television, and music stores . . . . .	573	32.8	33.2	33.5	32.1	-	-	-	-	-	-
<b>Eating and drinking places<sup>3</sup> . . . . .</b>	<b>58</b>	<b>25.9</b>	<b>24.7</b>	<b>25.6</b>	<b>25.0</b>	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers' on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>
<b>Transportation and public utilities—Continued</b>											
Communication .....	48	\$12.43	\$12.28	\$12.61	\$12.52	-	\$497.20	\$487.52	\$505.66	\$502.05	-
Telephone communication .....	481	13.21	13.07	13.38	13.28	-	545.57	534.56	553.93	548.46	-
Radio and television broadcasting .....	483	10.86	10.63	11.25	11.32	-	394.22	386.93	406.13	413.18	-
Electric, gas, and sanitary services .....	49	13.80	13.61	14.02	13.96	-	572.70	564.82	586.04	582.13	-
Electric services .....	491	13.86	13.65	14.04	13.96	-	571.03	566.48	582.66	580.74	-
Gas production and distribution .....	492	13.00	12.79	13.21	13.22	-	530.40	529.51	544.25	547.31	-
Combination utility services .....	493	16.16	15.90	16.41	16.25	-	685.18	667.80	708.91	697.13	-
Sanitary services .....	495	10.14	9.95	10.54	10.60	-	428.92	412.93	439.52	428.24	-
<b>Wholesale trade .....</b>		<b>9.61</b>	<b>9.49</b>	<b>9.74</b>	<b>9.79</b>	<b>\$9.81</b>	<b>367.10</b>	<b>361.57</b>	<b>373.04</b>	<b>372.02</b>	<b>\$371.80</b>
Durable goods .....	50	9.74	9.58	9.90	9.94	-	376.94	369.79	385.11	382.69	-
Motor vehicles and automotive equipment .....	501	8.70	8.57	8.95	9.01	-	333.21	327.37	346.37	344.18	-
Furniture and home furnishings .....	502	8.92	8.75	8.96	8.99	-	332.72	323.75	341.38	339.82	-
Lumber and construction materials .....	503	9.26	9.08	9.45	9.44	-	364.84	352.30	372.33	360.61	-
Sporting goods, toys, and hobby goods .....	504	9.76	9.85	9.55	9.43	-	355.26	361.50	346.67	334.77	-
Metals and minerals, except petroleum .....	505	10.35	10.22	10.45	10.45	-	421.25	413.91	436.81	429.50	-
Electrical goods .....	506	10.07	9.84	10.29	10.36	-	386.69	380.81	395.14	395.75	-
Hardware, plumbing, and heating equipment .....	507	9.23	9.15	9.33	9.35	-	354.43	347.70	359.21	360.36	-
Machinery, equipment, and supplies .....	508	10.40	10.21	10.57	10.61	-	406.64	397.17	414.34	413.79	-
Miscellaneous durable goods .....	509	7.75	7.64	7.82	7.85	-	297.73	287.26	297.94	292.02	-
Nondurable goods .....	51	9.41	9.36	9.53	9.56	-	352.88	350.06	358.33	355.63	-
Paper and paper products .....	511	10.14	9.92	10.39	10.44	-	376.19	368.03	388.59	383.15	-
Drugs, proprietaries, and sundries .....	512	10.81	10.65	10.83	10.88	-	404.29	399.38	410.46	409.09	-
Apparel, piece goods, and notions .....	513	9.18	9.21	9.22	9.43	-	337.82	334.32	345.75	347.97	-
Groceries and related products .....	514	9.52	9.49	9.63	9.62	-	361.76	357.77	366.90	363.64	-
Chemicals and allied products .....	516	12.08	12.01	12.11	12.24	-	472.33	469.59	475.92	478.58	-
Petroleum and petroleum products .....	517	9.66	9.74	9.78	9.79	-	376.74	383.76	379.46	384.75	-
Beer, wine, and distilled beverages .....	518	11.03	10.80	11.28	11.03	-	393.77	385.56	401.57	386.05	-
Miscellaneous nondurable goods .....	519	7.70	7.65	7.75	7.78	-	284.13	280.76	285.20	282.41	-
<b>Retail trade .....</b>		<b>6.12</b>	<b>6.09</b>	<b>6.19</b>	<b>6.23</b>	<b>6.22</b>	<b>179.32</b>	<b>172.35</b>	<b>181.37</b>	<b>176.31</b>	<b>177.89</b>
Building materials and garden supplies .....	52	7.01	6.99	7.17	7.22	-	257.27	253.04	260.99	258.48	-
Lumber and other building materials .....	521	7.35	7.31	7.55	7.57	-	283.71	278.51	289.17	283.88	-
Hardware stores .....	525	5.94	5.89	6.05	6.08	-	197.21	191.43	201.47	198.82	-
General merchandise stores .....	53	6.48	6.41	6.57	6.40	-	182.09	171.15	187.90	164.48	-
Department stores .....	531	6.80	6.71	6.90	6.69	-	189.72	177.14	194.58	168.59	-
Variety stores .....	533	4.81	4.75	4.89	4.83	-	140.45	134.90	151.59	135.72	-
Misc. general merchandise stores .....	539	5.02	5.01	4.94	5.12	-	151.10	141.78	155.12	148.48	-
Food stores .....	54	6.95	6.95	6.90	6.97	-	209.20	202.25	206.31	207.01	-
Grocery stores .....	541	7.11	7.11	7.06	7.10	-	216.14	209.03	211.80	211.58	-
Retail bakeries .....	546	5.61	5.58	5.75	5.74	-	154.84	145.08	163.30	157.28	-
Automotive dealers and service stations .....	55	7.76	7.57	7.84	7.83	-	284.02	274.03	285.38	284.23	-
New and used car dealers .....	551,2	9.44	9.13	9.44	9.39	-	353.06	338.72	352.11	350.25	-
Auto and home supply stores .....	553	6.69	6.56	6.85	6.86	-	262.25	254.53	263.73	262.74	-
Gasoline service stations .....	554	5.51	5.44	5.64	5.65	-	188.44	182.78	191.20	192.67	-
Apparel and accessory stores .....	56	5.57	5.48	5.62	5.72	-	149.83	139.74	156.24	147.00	-
Men's and boys' clothing and furnishings .....	561	6.59	6.46	6.63	6.60	-	195.72	187.99	202.22	198.56	-
Women's ready-to-wear stores .....	562	5.23	5.18	5.28	5.38	-	133.89	126.91	137.28	129.66	-
Family clothing stores .....	565	5.51	5.56	5.44	5.54	-	149.32	138.44	153.95	141.27	-
Shoe stores .....	566	5.61	5.26	5.82	5.85	-	156.52	140.44	166.45	156.78	-
Furniture and home furnishings stores .....	57	7.51	7.41	7.75	7.68	-	248.58	243.05	260.40	249.60	-
Furniture and home furnishings stores .....	571	7.59	7.57	7.75	7.80	-	250.47	245.27	259.63	253.50	-
Household appliance stores .....	572	7.48	7.30	7.74	7.72	-	253.57	244.55	263.16	257.08	-
Radio, television, and music stores .....	573	7.40	7.19	7.75	7.47	-	242.72	238.71	259.63	239.79	-
Eating and drinking places <sup>a</sup> .....	58	4.41	4.39	4.50	4.53	-	114.22	108.43	115.20	113.25	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers' on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Avg 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Avg. 1987	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>
<b>Retail trade—Continued</b>											
Miscellaneous retail .....	59	30.3	29.7	30.9	29.5	-	-	-	-	-	-
Drug stores and proprietary stores .....	591	28.1	27.7	28.3	27.3	-	-	-	-	-	-
Miscellaneous shopping goods stores .....	594	28.8	28.1	29.9	27.8	-	-	-	-	-	-
Nonstore retailers .....	596	33.1	32.3	35.1	31.8	-	-	-	-	-	-
Fuel and ice dealers .....	598	38.7	39.4	39.5	41.8	-	-	-	-	-	-
Retail stores, nec .....	599	32.1	31.1	32.2	30.6	-	-	-	-	-	-
<b>Finance, insurance, and real estate<sup>6</sup></b>											
		36.2	36.3	36.0	36.2	36.6	-	-	-	-	-
Banking .....	60	36.1	36.2	35.8	36.0	-	-	-	-	-	-
Commercial and stock savings banks .....	602	36.1	36.3	35.7	35.9	-	-	-	-	-	-
Credit agencies other than banks .....	61	36.7	36.5	36.2	36.5	-	-	-	-	-	-
Savings and loan associations .....	612	36.0	36.1	35.6	36.0	-	-	-	-	-	-
Personal credit institutions .....	614	36.7	36.3	36.4	36.4	-	-	-	-	-	-
Insurance carriers .....	63	37.3	37.5	37.3	37.6	-	-	-	-	-	-
Life insurance .....	631	36.9	37.0	36.8	37.1	-	-	-	-	-	-
Medical service and health insurance .....	632	38.0	39.0	38.3	39.2	-	-	-	-	-	-
Fire, marine, and casualty insurance .....	633	37.3	37.3	37.1	37.3	-	-	-	-	-	-
<b>Services</b>											
		32.5	32.2	32.4	32.5	32.7	-	-	-	-	-
Hotels and other lodging places.											
Hotels, motels, and tourist courts <sup>5</sup> .....	701	30.7	29.4	29.7	30.2	-	-	-	-	-	-
<b>Personal services:</b>											
Laundry, cleaning, and garment services .....	721	34.2	33.8	34.2	33.1	-	-	-	-	-	-
Beauty shops <sup>5</sup> .....	723	29.5	29.0	29.7	29.1	-	-	-	-	-	-
<b>Business services</b>											
Advertising .....	731	36.5	36.0	36.7	36.7	-	-	-	-	-	-
Services to buildings .....	734	28.6	28.1	28.5	28.3	-	-	-	-	-	-
Computer and data processing services .....	737	37.5	37.7	37.4	38.1	-	-	-	-	-	-
<b>Auto repair, services, and garages</b>											
Automotive repair shops .....	753	38.4	38.5	38.4	38.0	-	-	-	-	-	-
<b>Miscellaneous repair services</b>											
	76	37.8	37.6	38.4	37.7	-	-	-	-	-	-
<b>Motion pictures</b>											
Motion picture production and services .....	781	37.2	36.9	38.1	35.9	-	-	-	-	-	-
<b>Amusement and recreation services</b>											
	79	28.9	28.2	28.3	28.0	-	-	-	-	-	-
<b>Health services</b>											
Offices of physicians .....	801	30.9	30.9	31.0	31.3	-	-	-	-	-	-
Offices of dentists .....	802	28.3	28.2	28.6	28.4	-	-	-	-	-	-
Nursing and personal care facilities .....	805	31.6	31.4	31.6	31.8	-	-	-	-	-	-
Hospitals .....	806	34.1	34.0	34.0	34.2	-	-	-	-	-	-
<b>Legal services</b>											
	81	34.6	34.5	34.4	35.0	-	-	-	-	-	-
<b>Miscellaneous services</b>											
Engineering and architectural services .....	891	39.5	39.4	39.6	39.1	-	-	-	-	-	-
Accounting, auditing, and bookkeeping .....	893	37.3	37.9	36.4	37.8	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by detailed Industry—Continued**

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Avg 1987	Jan. 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>	Avg. 1987	Jan. 1987	Dec 1987	Jan 1988 <sup>a</sup>	Feb 1988 <sup>a</sup>
<b>Retail trade—Continued</b>											
Miscellaneous retail .....	59	\$6 32	\$6.27	\$6.32	\$6.52	-	\$191.50	\$186.22	\$195.29	\$192.34	-
Drug stores and proprietary stores ..	591	5.86	5.77	5.90	6.04	-	164.67	159.83	166.97	164.89	-
Miscellaneous shopping goods stores ..	594	5.86	5.82	5.82	6.10	-	168.77	163.54	174.02	169.58	-
Nonstore retailers .....	596	7.18	7.13	7.21	7.25	-	237.66	230.30	253.07	230.55	-
Fuel and ice dealers .....	598	9.06	9.17	9.29	9.61	-	350.62	361.30	366.96	401.70	-
Retail stores, nec .....	599	6.49	6.40	6.43	6.54	-	208.33	199.04	207.05	200.12	-
<b>Finance, insurance, and real estate<sup>a</sup></b>											
		8.76	8.60	8.87	9.01	\$9.05	317.11	312.18	319.32	326.16	\$331.23
Banking .....	60	7.50	7.37	7.60	7.73	-	270.75	266.79	272.08	278.28	-
Commercial and stock savings banks ..	602	7.26	7.15	7.36	7.52	-	262.09	259.55	262.75	269.97	-
Credit agencies other than banks .....	61	7.97	7.84	8.04	8.14	-	292.50	286.16	291.05	297.11	-
Savings and loan associations .....	612	7.41	7.23	7.55	7.65	-	266.76	261.00	268.78	275.40	-
Personal credit institutions .....	614	7.49	7.37	7.57	7.61	-	274.88	267.53	275.55	277.00	-
Insurance carriers .....	63	9.62	9.36	9.82	9.91	-	358.83	351.00	366.29	372.62	-
Life insurance .....	631	9.17	8.91	9.43	9.50	-	338.37	329.67	347.02	352.45	-
Medical service and health insurance ..	632	9.42	9.24	9.48	9.45	-	357.96	360.36	363.08	370.44	-
Fire, marine, and casualty insurance ..	633	9.98	9.70	10.25	10.35	-	372.25	361.81	380.28	386.06	-
<b>Services</b>											
		8.47	8.37	8.73	8.78	8.80	275.28	269.51	282.85	285.35	287.76
Hotels and other lodging places.											
Hotels, motels, and tourist courts <sup>a</sup> ..	701	6.12	6.12	6.41	6.33	-	187.88	179.93	190.38	191.17	-
Personal services:											
Laundry, cleaning, and garment services ..	721	6.14	6.03	6.22	6.26	-	209.99	203.81	212.72	207.21	-
Beauty shops <sup>a</sup> .....	723	6.40	6.10	6.72	6.55	-	188.80	176.90	199.58	190.61	-
Business services .....	73	8.71	8.58	8.88	9.01	-	291.79	285.71	299.26	302.74	-
Advertising .....	731	11.89	11.30	12.24	12.30	-	433.99	406.80	449.21	451.41	-
Services to buildings .....	734	6.74	6.56	6.84	6.75	-	192.76	184.34	194.94	191.03	-
Computer and data processing services ..	737	12.12	11.73	12.38	12.35	-	454.50	442.22	463.01	470.54	-
Auto repair, services, and garages ..	75	7.83	7.66	8.02	8.07	-	288.93	283.42	292.73	295.36	-
Automotive repair shops .....	753	8.42	8.30	8.58	8.68	-	323.33	319.55	329.47	329.84	-
Miscellaneous repair services .....	76	9.14	8.89	9.49	9.41	-	345.49	334.26	364.42	354.76	-
Motion pictures .....	78	12.15	12.45	13.15	12.67	-	356.00	358.56	389.24	364.90	-
Motion picture production and services ..	781	16.28	16.74	17.07	16.64	-	605.62	617.71	650.37	597.38	-
Amusement and recreation services ..	79	7.03	7.49	7.68	7.64	-	203.17	211.22	217.34	213.92	-
Health services .....	80	8.70	8.53	8.91	8.98	-	281.88	274.67	287.79	291.85	-
Offices of physicians .....	801	8.40	8.29	8.57	8.65	-	259.56	256.16	265.67	270.75	-
Offices of dentists .....	802	8.49	8.38	8.66	8.70	-	240.27	236.32	247.68	247.08	-
Nursing and personal care facilities ..	805	5.99	5.89	6.12	6.18	-	189.28	184.95	193.39	196.52	-
Hospitals .....	806	9.85	9.63	10.14	10.23	-	335.89	327.42	344.76	349.87	-
Legal services .....	81	11.96	11.69	12.33	12.46	-	413.82	403.31	424.15	436.10	-
Miscellaneous services .....	89	12.10	11.84	12.37	12.36	-	464.64	455.84	472.53	474.62	-
Engineering and architectural services ..	891	12.96	12.84	13.17	13.24	-	511.92	505.90	521.53	517.68	-
Accounting, auditing, and bookkeeping ..	893	10.33	9.89	10.58	10.53	-	385.31	374.83	385.11	398.03	-

<sup>1</sup> Data relate to production workers in mining and manufacturing, construction workers in construction, and nonsupervisory workers in transportation and public utilities, wholesale and retail trade, finance, insurance, and real estate, and services.

<sup>2</sup> See table C-2a for average hourly earnings in the aircraft industry (SIC 3721).

<sup>3</sup> Publication of data for SIC 3761, and thus the 376 aggregate, has been temporarily suspended, as the series may have been inflated by the incorrect incorporation of lump-sum payments. Estimates for October 1983 forward are under review.

<sup>4</sup> Data relate to line haul railroads with operating revenues of

\$50,000,000 or more.

<sup>5</sup> Money payments only, tips, not included.

<sup>6</sup> Data for nonoffice sales agents are excluded from all series in this division.

- Data not available.

<sup>7</sup> = preliminary.

NOTE Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1986 forward are subject to revision.



## A Note on Average Hourly Earnings in Aircraft Manufacturing

For many years, the Bureau of Labor Statistics' average hourly earnings series for production workers in aircraft manufacturing (SIC 3721) has been used to escalate labor costs in contracts between aircraft companies and their customers. Although the Bureau's series by definition takes account of traditional wage rate changes, it does not capture "lump-sum payments to workers in lieu of general wage increases" which were negotiated in aircraft manufacturers' collective bargaining agreements beginning in late 1983.

As a service to aircraft companies and other interested parties, BLS has calculated an average hourly earnings series for SIC 3721 which includes lump-sum payments. This series is presented in table C-2a along with the average hourly earnings series produced as part of the Current Employment Statistics program. The series begins in October 1983, the effective date of the first aircraft bargaining agreement using lump-sum payments.

The general practice in the industry has been to make this payment at the beginning of the contract year "in lieu of a wage increase" and to base the amount of the payment on the workers' earnings during the preceding year. As a result, the Bureau considered three approaches to the method for calculating an average hourly earnings series which includes lump-sum payments:

1. The entire payment could be included in the month in which the payment was made.
2. The payments could be prorated backward to payroll periods used to determine the amount of the lump-sum payment.
3. The payments could be prorated forward as an advance

payment for payroll periods in the year following the payment.

The first approach, attractive because it includes the payment in the month in which it is received by the worker, creates 1-month "spikes" and a series which would not be useful for escalation purposes. The second approach, which prorates the payments backward, places emphasis on the determination of the amount of the payment from workers' earnings in the previous year. This approach generally relates the payments to the workers who receive them. However, the Bureau has received statements from both union and company officials who negotiated the agreements covering a majority of the workers in the industry. These statements make clear that the intent of the bargainers was to make an advance payment for the upcoming contract year in lieu of an increase in wage rates for that following year.

Because BLS has a longstanding policy of leaving the interpretation of collective bargaining agreements to the parties involved, the Bureau calculated the inclusion of lump-sum payments using the third method, prorating the payments forward through the years covered by the contract. Because the payments prorated forward under this approach may include payments to workers no longer on the payroll, data provided by the aircraft companies have been used to adjust for this difference.

Lump-sum payments are but one of several recent changes in the way that employees are compensated. The changes are widespread and they differ by industry. Because of these developments, the Bureau plans to conduct a broad-based review of all concepts and definitions used in its earnings and wage programs to determine the proper treatment of lump-sum payments and other new compensation practices.

**C-2a. Average hourly earnings in aircraft manufacturing (SIC 3721)**

Year	Annual average	Jan.	Feb	Mar.	Apr.	May	June	July	Aug	Sept.	Oct	Nov.	Dec
Average hourly earnings, excluding lump-sum payments													
1983 .....											\$12.76	\$12.83	\$12.93
1984 .....	\$12.91	\$12.82	\$12.88	\$12.85	\$12.81	\$12.78	\$12.87	\$12.89	\$12.87	\$12.97	13.04	13.05	13.13
1985 .....	13.18	13.01	13.12	13.11	13.04	13.06	13.11	13.05	13.16	13.26	13.35	13.37	13.48
1986 .....	13.48	13.38	13.44	13.46	13.45	13.38	13.42	13.41	13.44	13.48	13.52	13.67	13.65
1987 .....	13.74	13.61	13.61	13.66	13.63	13.73	13.72	13.68	13.76	13.76	13.80	13.94	13.99
Average hourly earnings, including lump-sum payments													
1983 .....											\$12.83	\$12.92	\$13.03
1984 .....	\$13.11	\$12.95	\$13.02	\$13.02	\$12.98	\$12.97	\$13.06	\$13.11	\$13.09	\$13.19	13.26	13.28	13.37
1985 .....	13.40	13.26	13.36	13.33	13.26	13.27	13.33	13.29	13.39	13.48	13.54	13.57	13.68
1986 .....	13.80	13.58	13.64	13.66	13.68	13.60	13.64	13.61	13.63	13.67	14.19	14.31	14.26
1987 .....	14.32	14.21	14.25	14.29	14.36	14.42	14.39	14.37	14.43	14.39	14.13	14.26	14.31



**ESTABLISHMENT DATA  
EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-3. Average hourly earnings, excluding overtime,<sup>1</sup> of production workers on manufacturing payrolls**

Industry	Avg. 1987	Feb 1987	Dec. 1987	Jan 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>
<b>Manufacturing</b> .....	\$9.48	\$9.44	\$9.60	\$9.63	\$9.64
<b>Durable goods</b> .....	10.00	9.96	10.1*	10.14	10.15
Lumber and wood products .....	8.03	8.96	8.08	8.19	( <sup>3</sup> )
Furniture and fixtures .....	7.41	7.34	7.48	7.55	( <sup>3</sup> )
Stone, clay, and glass products .....	9.69	9.62	9.76	9.85	( <sup>3</sup> )
Primary metal industries .....	11.33	11.18	11.44	11.42	( <sup>3</sup> )
Fabricated metal products .....	9.59	9.57	9.72	9.71	( <sup>3</sup> )
Machinery, except electrical .....	10.28	10.22	10.37	10.38	( <sup>3</sup> )
Electrical and electronic equipment .....	9.55	9.51	9.62	9.63	( <sup>3</sup> )
Transportation equipment .....	12.34	12.26	12.58	12.58	( <sup>3</sup> )
Instruments and related products .....	9.40	9.35	9.46	9.55	( <sup>3</sup> )
Miscellaneous manufacturing .....	7.49	7.45	7.64	7.73	( <sup>3</sup> )
<b>Nondurable goods</b> .....	8.77	8.72	8.88	8.91	\$8.92
Food and kindred products .....	8.49	8.54	8.60	8.61	( <sup>3</sup> )
Tobacco manufactures .....	13.39	13.25	13.03	13.37	( <sup>3</sup> )
Textile mill products .....	6.82	6.76	6.95	7.01	( <sup>3</sup> )
Apparel and other textile products .....	5.80	5.79	5.86	5.89	( <sup>3</sup> )
Paper and allied products .....	10.78	10.67	10.87	10.87	( <sup>3</sup> )
Printing and publishing .....	9.88	9.79	9.99	10.02	( <sup>3</sup> )
Chemicals and allied products .....	11.82	11.68	12.03	11.97	( <sup>3</sup> )
Petroleum and coal products .....	13.78	13.79	13.94	14.07	( <sup>3</sup> )
Rubber and misc. plastics products .....	8.47	8.41	8.55	8.54	( <sup>3</sup> )
Leather and leather products .....	5.90	5.88	5.95	5.97	( <sup>3</sup> )

<sup>1</sup> Derived by assuming that overtime hours are paid at the rate of time and one-half.

<sup>2</sup> Not available.

<sup>3</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1986 forward are subject to revision.

**ESTABLISHMENT DATA  
EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-4. Average hourly and weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by major industry, in current and constant (1977) dollars.**

Industry	Average hourly earnings					Average weekly earnings				
	Avg 1987	Jan. 1987	Dec 1987	Jan 1988 <sup>2</sup>	Feb. 1988 <sup>2</sup>	Avg 1987	Jan. 1987	Dec 1987	Jan 1988 <sup>2</sup>	Feb 1988 <sup>2</sup>
<b>Total private:</b>										
Current dollars .....	\$8 98	\$8 90	\$9 13	\$9.18	\$9 17	\$312.50	\$306 16	\$318.64	\$315.79	\$317.28
Constant (1977) dollars .....	4 86	4 93	4 87	4 88	( <sup>1</sup> )	169.28	169 52	170.03	167.97	( <sup>1</sup> )
<b>Mining:</b>										
Current dollars .....	12 45	12.66	12 50	12.67	\$12.60	526.64	538.05	535.00	532 14	\$527 94
Constant (1977) dollars .....	6.74	7.01	6 67	6.74	( <sup>1</sup> )	285 29	297.92	285 49	283 05	( <sup>1</sup> )
<b>Construction:</b>										
Current dollars .....	12 66	12 58	12 78	12.92	\$12.74	477 28	467 98	480 53	465.12	\$461 19
Constant (1977) dollars .....	6 86	6.97	6 82	6 87	( <sup>1</sup> )	258 55	259 13	256.42	247 40	( <sup>1</sup> )
<b>Manufacturing:</b>										
Current dollars .....	9 91	9.84	10 08	10.07	\$10 07	406.31	401.47	421 34	412 87	\$409.85
Constant (1977) dollars .....	5 37	5.45	5 38	5 36	( <sup>1</sup> )	220 10	222.30	224 83	219.61	( <sup>1</sup> )
<b>Transportation and public utilities:</b>										
Current dollars .....	12 01	11 89	12.17	12.12	\$12.14	469.59	457.77	477.06	471.47	\$472 25
Constant (1977) dollars .....	6 51	6.58	6 49	6 45	( <sup>1</sup> )	254.38	253.47	254.57	250.78	( <sup>1</sup> )
<b>Wholesale trade:</b>										
Current dollars .....	9 61	9 49	9.74	9.79	\$9 81	367.10	361.57	373 04	372.02	\$371.80
Constant (1977) dollars .....	5.21	5.25	5 20	5.21	( <sup>1</sup> )	198.86	200 20	199 06	197.88	( <sup>1</sup> )
<b>Retail trade:</b>										
Current dollars .....	6 12	6.09	6.19	6 23	\$6 22	179.32	172.35	181.37	176.31	\$177.89
Constant (1977) dollars .....	3.32	3 37	3 30	3.31	( <sup>1</sup> )	97.14	95 43	96.78	93.78	( <sup>1</sup> )
<b>Finance, insurance, and real estate:</b>										
Current dollars .....	8.76	8 60	8 87	9 01	\$9 05	317.11	312 18	319 32	326.16	\$331 23
Constant (1977) dollars .....	4.75	4 76	4 73	4.79	( <sup>1</sup> )	171.78	172 86	170.39	173.49	( <sup>1</sup> )
<b>Services:</b>										
Current dollars .....	8 47	8.37	8.73	8.78	\$8 80	275.28	269.51	282.85	285.35	\$287.76
Constant (1977) dollars .....	4.59	4.64	4 66	4.67	( <sup>1</sup> )	149.12	149.23	150.93	151.78	( <sup>1</sup> )

<sup>1</sup> Data relate to production workers in mining and manufacturing, construction workers in construction, and nonsupervisory workers in transportation and public utilities, wholesale and retail trade, finance, insurance, and real estate, and services

<sup>2</sup> Not available.

<sup>3</sup> = preliminary

NOTE The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate the earnings series. Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced all unadjusted data from April 1986 forward are subject to revision.

**ESTABLISHMENT DATA  
HOURS  
SEASONALLY ADJUSTED**

**C-5. Average weekly hours of production or nonsupervisory workers' on private nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted**

Industry	1987											1988	
	Feb	Mar.	Apr.	May	June	July	Aug	Sept.	Oct.	Nov	Dec.	Jan. <sup>P</sup>	Feb. <sup>P</sup>
<b>Total private</b> .....	34.9	34.8	34.7	34.9	34.8	34.8	34.9	34.6	34.9	34.9	34.6	34.7	34.9
<b>Mining</b> .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
<b>Construction</b> .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
<b>Manufacturing</b> .....	41.1	40.9	40.6	41.0	41.0	41.0	41.0	40.6	41.3	41.2	41.0	41.1	40.9
<i>Overtime hours</i> .....	3.6	3.6	3.5	3.8	3.7	3.8	3.8	3.6	4.0	3.9	3.8	3.9	3.8
<b>Durable goods</b> .....	41.7	41.5	41.2	41.6	41.5	41.6	41.6	41.0	41.9	41.9	41.5	41.7	41.5
<i>Overtime hours</i> .....	3.7	3.7	3.6	3.9	3.8	3.8	4.0	3.7	4.1	4.0	3.9	4.0	3.9
Lumber and wood products .....	41.3	40.9	40.6	41.0	40.6	40.6	40.4	39.4	40.4	40.8	40.4	40.2	40.7
Furniture and fixtures .....	40.2	40.0	39.1	39.9	40.0	40.0	40.1	39.3	40.0	40.0	39.8	39.6	39.6
Stone, clay, and glass products .....	42.8	42.5	41.9	42.3	42.0	42.2	42.1	41.9	42.6	42.5	42.5	42.0	41.9
Primary metal industries .....	42.6	42.6	42.3	43.1	43.1	43.4	43.5	43.4	43.7	43.7	43.6	43.5	43.2
Blast furnaces and basic steel products .....	42.3	42.3	42.4	43.3	43.5	44.1	44.0	45.2	44.3	44.0	44.3	44.0	43.9
Fabricated metal products .....	41.6	41.5	41.2	41.6	41.5	41.4	41.5	40.8	42.0	42.1	41.7	41.9	41.5
Machinery, except electrical .....	42.2	42.0	41.8	42.2	42.2	42.4	42.2	41.6	42.6	42.7	42.5	42.8	42.6
Electrical and electronic equipment .....	41.1	40.9	40.6	40.8	41.1	41.1	41.0	40.4	41.1	41.0	40.9	41.2	40.7
Transportation equipment .....	42.5	42.3	41.9	42.2	41.9	41.7	41.9	41.3	42.5	42.4	41.4	42.0	42.0
Motor vehicles and equipment .....	43.0	42.9	42.1	42.5	42.0	41.9	41.9	41.3	43.0	43.1	41.4	42.1	42.5
Instruments and related products .....	41.3	41.3	41.0	41.5	41.5	41.6	41.7	41.1	42.1	41.7	41.3	41.7	41.5
Miscellaneous manufacturing .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
<b>Nondurable goods</b> .....	40.3	40.1	39.7	40.2	40.2	40.3	40.3	40.1	40.5	40.4	40.3	40.4	40.2
<i>Overtime hours</i> .....	3.5	3.5	3.3	3.7	3.6	3.7	3.7	3.6	3.8	3.8	3.7	3.8	3.6
Food and kindred products .....	40.1	40.0	39.8	40.1	40.1	39.9	40.3	40.2	40.5	40.6	40.6	40.7	40.3
Tobacco manufactures .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Textile mill products .....	42.0	42.1	41.4	42.0	42.1	42.4	42.1	41.3	41.9	41.8	41.7	41.6	41.4
Apparel and other textile products .....	37.4	37.0	36.1	37.2	37.1	37.3	37.4	36.3	37.4	37.1	37.2	36.9	37.0
Paper and allied products .....	43.3	43.0	43.0	43.5	43.3	43.5	43.4	43.8	43.7	43.5	43.2	43.6	43.1
Printing and publishing .....	38.1	37.9	37.7	37.9	38.1	38.1	37.9	38.2	38.0	38.0	37.9	38.0	37.9
Chemicals and allied products .....	42.2	42.0	42.2	42.1	42.0	42.2	42.4	42.8	42.7	42.7	42.7	42.6	42.6
Petroleum and coal products .....	44.0	44.1	43.9	44.3	43.3	44.4	43.3	43.2	43.5	43.6	44.3	44.4	44.2
Rubber and misc. plastics products .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Leather and leather products .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
<b>Transportation and public utilities</b> .....	39.2	39.0	39.0	39.2	38.8	39.2	39.3	39.1	39.3	39.1	39.0	39.4	39.1
<b>Wholesale trade</b> .....	38.3	38.1	38.2	38.3	38.2	38.1	38.3	38.0	38.4	38.3	38.1	38.2	38.2
<b>Retail trade</b> .....	29.3	29.3	29.5	29.4	29.2	29.3	29.6	29.6	29.3	29.2	28.8	28.9	29.2
<b>Finance, insurance, and real estate</b> .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
<b>Services</b> .....	32.6	32.5	32.4	32.5	32.5	32.5	32.5	32.5	32.5	32.6	32.4	32.7	32.9

<sup>1</sup> Data relate to production workers in mining and manufacturing, construction workers in construction; and nonsupervisory workers in transportation and public utilities, wholesale and retail trade, finance, insurance, and real estate; and services.

<sup>2</sup> These series are not published seasonally adjusted because the seasonal components are small relative to the trend-cycle and/or irregular

components and consequently cannot be separated with sufficient precision.  
<sup>P</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 forward are subject to revision.

**ESTABLISHMENT DATA  
HOURS  
SEASONALLY ADJUSTED**

**C-6. Indexes of aggregate weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted**

(1977 = 100)

Industry	1987												1988	
	Feb	Mar	Apr.	May	June	July	Aug	Sept.	Oct.	Nov	Dec.	Jan. <sup>p</sup>	Feb. <sup>p</sup>	
Total private .....	119.7	119.6	119.6	120.2	120.0	120.6	121.2	120.4	121.9	122.2	121.8	122.3	123.5	
Goods-producing .....	99.3	98.9	98.0	99.2	98.9	99.5	99.7	97.7	101.3	101.4	101.6	100.5	101.3	
Mining .....	79.9	80.0	81.3	83.4	83.5	85.0	85.2	84.9	87.7	86.4	85.8	82.8	83.6	
Construction .....	136.2	135.5	132.8	134.3	132.6	133.2	133.6	124.9	136.8	136.1	138.5	130.5	136.7	
Manufacturing .....	93.1	92.8	92.1	93.1	93.1	93.6	93.8	93.1	95.0	95.4	95.2	95.6	95.3	
Durable goods .....	90.6	90.2	89.6	90.5	90.5	90.6	91.2	90.1	92.6	93.0	92.6	92.9	92.7	
Lumber and wood products .....	103.3	102.5	102.0	103.2	101.7	102.4	101.2	99.2	101.7	104.2	103.7	102.8	104.6	
Furniture and fixtures .....	107.9	107.9	105.7	109.0	109.5	111.6	111.7	109.7	112.7	113.3	113.5	113.4	113.4	
Stone, clay, and glass products .....	88.3	87.5	86.3	86.9	86.1	86.1	86.1	85.9	87.7	88.1	88.7	86.7	86.9	
Primary metal industries .....	61.2	61.9	62.1	63.1	63.5	64.4	65.0	65.9	66.8	67.3	67.1	66.6	66.5	
Blast furnaces and basic steel products .....	46.8	47.7	49.6	50.7	51.4	52.6	53.0	55.2	54.9	55.0	55.1	54.8	55.4	
Fabricated metal products .....	89.1	88.9	88.4	89.0	89.1	89.0	89.4	88.2	91.3	92.2	91.7	92.3	91.6	
Machinery, except electrical .....	85.1	84.7	84.8	86.0	86.5	87.0	87.4	86.7	89.3	90.1	90.1	91.3	91.1	
Electrical and electronic equipment .....	100.8	99.9	99.0	99.4	99.9	100.6	100.8	99.3	102.0	102.0	102.7	103.3	102.1	
Transportation equipment .....	98.9	98.2	96.6	97.3	96.6	94.3	97.4	95.2	97.8	97.3	94.9	95.6	95.5	
Motor vehicles and equipment .....	89.0	88.0	85.6	86.1	85.1	81.5	86.1	83.3	86.9	86.7	83.0	83.2	83.8	
Instruments and related products .....	102.0	101.7	101.0	102.0	102.2	103.0	103.0	102.1	105.1	104.6	103.6	105.2	104.7	
Miscellaneous manufacturing .....	81.1	81.1	79.9	81.0	81.4	81.9	82.3	80.7	82.7	82.5	82.0	82.4	82.8	
Nondurable goods .....	96.7	96.5	95.7	97.0	97.0	98.1	97.7	97.4	98.7	99.0	99.2	99.5	99.2	
Food and kindred products .....	99.3	99.4	99.3	99.6	99.3	99.6	99.5	99.1	100.3	101.4	101.4	103.0	102.2	
Tobacco manufactures .....	76.0	77.7	77.3	80.1	76.3	73.1	71.0	72.4	73.8	75.4	78.5	79.6	77.3	
Textile mill products .....	82.3	82.9	81.3	82.9	83.3	84.8	83.7	82.4	83.7	83.8	83.6	83.1	83.1	
Apparel and other textile products .....	86.1	85.3	83.5	85.8	85.9	88.2	86.6	84.8	87.8	87.6	87.3	86.4	86.3	
Paper and allied products .....	100.6	99.7	99.5	100.5	100.0	100.8	100.4	101.9	101.3	101.0	100.5	101.7	100.7	
Printing and publishing .....	130.2	129.4	128.7	130.0	131.1	131.4	131.4	132.6	132.3	133.0	133.1	134.5	135.1	
Chemicals and allied products .....	93.4	93.1	93.4	93.7	92.8	94.5	95.5	96.4	96.3	97.0	97.8	97.6	97.9	
Petroleum and coal products .....	83.1	83.3	82.9	84.5	83.4	84.7	83.4	83.2	84.5	83.9	86.9	87.1	87.5	
Rubber and misc. plastics products .....	113.5	113.5	112.6	114.5	114.8	115.0	115.5	115.5	118.4	119.3	119.8	120.1	119.3	
Leather and leather products .....	57.8	57.8	57.4	59.5	59.7	62.2	61.4	60.0	61.1	60.2	60.2	60.0	58.9	
Service-producing .....	131.0	131.0	131.5	131.9	131.7	132.3	133.1	132.9	133.3	133.6	133.0	134.3	135.8	
Transportation and public utilities .....	107.8	107.7	107.9	108.5	107.6	109.0	109.7	109.9	110.9	110.7	110.5	112.0	111.4	
Wholesale trade .....	117.4	116.9	117.4	117.7	117.6	117.5	118.2	117.3	118.8	119.0	118.8	119.5	119.8	
Retail trade .....	120.4	120.3	121.6	121.2	120.4	121.2	122.4	122.5	121.9	121.6	120.1	121.6	123.5	
Finance, insurance, and real estate .....	141.0	141.5	142.0	142.5	142.7	142.0	143.0	141.4	142.2	142.9	141.1	142.7	143.7	
Services .....	150.1	150.2	150.3	151.2	151.7	152.5	152.9	152.9	153.5	154.6	154.5	156.0	158.2	

<sup>1</sup> Data relate to production workers in mining and manufacturing; construction workers in construction, and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 forward are subject to revision.

**ESTABLISHMENT DATA  
EARNINGS  
SEASONALLY ADJUSTED**

**C-7. The Hourly Earnings Index and average hourly and weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, seasonally adjusted**

Industry	1987												1988	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan <sup>o</sup>	Feb. <sup>o</sup>	
	Hourly Earnings Index <sup>2</sup> (1977 = 100)													
Total private (in current dollars) .....	171.8	172.2	172.6	172.9	172.9	173.2	174.1	174.6	174.9	175.8	175.7	176.4	173.5	
Mining .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	
Construction .....	152.4	153.8	153.7	154.1	155.0	154.5	154.7	154.0	154.7	156.6	154.4	156.8	157.1	
Manufacturing .....	173.7	174.3	175.0	174.4	174.7	174.7	175.5	176.7	176.3	176.5	176.9	177.0	177.4	
Transportation and public utilities .....	174.3	174.6	175.2	176.2	175.6	176.4	177.0	176.6	176.9	177.1	177.4	177.4	177.6	
Wholesale trade .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	
Retail trade .....	158.9	159.0	159.8	160.2	160.3	160.9	161.5	162.7	162.2	162.3	162.7	162.8	162.4	
Finance, insurance, and real estate .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	
Services .....	178.4	179.0	179.4	179.9	179.9	180.5	182.4	182.3	183.9	185.2	185.1	186.3	185.9	
Total private (in constant dollars) <sup>4</sup> .....	94.6	94.4	94.2	94.0	93.8	93.7	93.7	93.8	93.6	93.8	93.6	93.7	( <sup>3</sup> )	
	Average hourly earnings													
Total private .....	\$8.88	\$8.91	\$8.91	\$8.95	\$8.94	\$8.96	\$9.02	\$9.02	\$9.08	\$9.12	\$9.11	\$9.14	\$9.12	
Mining .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	
Construction .....	\$12.48	\$12.62	\$12.61	\$12.65	\$12.72	\$12.67	\$12.71	\$12.67	\$12.68	\$12.84	\$12.65	\$12.86	\$12.71	
Manufacturing .....	9.81	9.83	9.86	9.88	9.88	9.87	9.93	10.02	10.00	10.01	10.02	10.02	10.04	
Transportation and public utilities .....	11.89	11.92	11.96	12.05	11.97	12.04	12.08	12.04	12.09	12.09	12.10	12.08	12.09	
Wholesale trade .....	9.50	9.53	9.52	9.59	9.58	9.59	9.68	9.65	9.72	9.75	9.69	9.77	9.76	
Retail trade .....	6.04	6.05	6.08	6.09	6.10	6.11	6.13	6.19	6.16	6.17	6.21	6.19	6.17	
Finance, insurance, and real estate .....	8.66	8.67	8.69	8.74	8.68	8.74	8.88	8.79	8.85	8.97	8.84	9.00	8.96	
Services .....	8.35	8.38	8.39	8.41	8.40	8.44	8.54	8.53	8.60	8.67	8.65	8.71	8.71	
	Average weekly earnings													
Total private:														
In current dollars .....	309.91	310.07	309.18	312.36	311.11	311.81	314.80	312.09	316.89	318.29	315.21	317.16	318.29	
In constant (1977) dollars <sup>4</sup> .....	170.66	169.99	168.67	169.85	168.71	168.64	169.43	167.61	169.55	169.94	168.02	168.43	( <sup>3</sup> )	

<sup>1</sup> Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

<sup>2</sup> Excludes the effects of two types of changes that are unrelated to underlying wage rate movements: Fluctuations in overtime in manufacturing and interindustry employment shifts.

<sup>3</sup> These series are not published seasonally adjusted because the seasonal components are small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.

<sup>4</sup> The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate these series.

<sup>5</sup> Not available.

<sup>6</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 forward are subject to revision. The CPI-W has been revised to reflect the experience through December 1987. Constant-dollar earnings series have been revised back to 1983.

**ESTABLISHMENT DATA  
STATE AND AREA HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>
<b>Alabama</b> ..	41.4	41.7	41.4	\$8.74	\$8.92	\$8.99	\$361.84	\$371.96	\$372.19
Birmingham ..	41.7	42.4	41.8	8.88	9.14	9.21	370.30	387.54	384.98
Mobile ..	41.9	40.3	40.8	10.17	10.48	10.44	426.12	422.34	425.95
<b>Alaska</b> ..	33.5	40.3	39.7	13.92	13.45	11.99	466.32	542.03	476.00
<b>Arizona</b> ..	40.8	41.1	40.5	9.81	9.93	9.89	400.25	408.12	400.55
<b>Arkansas</b> ..	40.9	42.0	41.5	7.82	8.00	8.06	319.84	336.00	334.49
Fayetteville-Springdale ..	39.8	43.6	43.8	6.99	7.36	7.28	278.20	320.90	318.86
Fort Smith ..	41.0	41.2	40.0	8.34	8.62	8.63	341.54	355.14	345.20
Little Rock-North Little Rock ..	41.7	41.9	40.7	8.59	8.58	8.77	358.20	359.50	356.94
Pine Bluff ..	43.6	43.9	42.0	11.03	10.39	10.73	480.91	456.12	450.66
<b>California</b> ..	40.0	41.1	( <sup>1</sup> )	10.63	10.98	( <sup>1</sup> )	425.20	451.28	( <sup>1</sup> )
<b>Colorado</b> ..	39.3	40.7	39.9	10.01	10.16	10.18	393.39	413.51	406.18
Denver ..	37.0	40.6	39.0	10.91	10.48	10.30	403.67	425.49	401.70
<b>Connecticut</b> ..	42.3	42.7	43.8	10.29	10.68	10.85	435.27	456.04	475.23
Bridgeport-Milford ..	41.7	42.4	42.5	10.63	11.15	11.25	443.27	472.76	478.13
Hartford ..	42.7	43.3	43.0	10.59	10.94	10.94	452.19	473.70	470.42
New Britain ..	43.0	44.7	( <sup>2</sup> )	10.68	10.87	( <sup>2</sup> )	459.24	485.89	( <sup>2</sup> )
New Haven-Meriden ..	41.3	40.9	39.9	10.00	10.27	\$10.17	413.00	420.04	\$405.78
Stamford ..	39.8	41.4	39.7	11.24	11.65	11.91	447.35	482.31	472.83
Waterbury ..	44.2	44.0	44.0	8.78	9.09	9.20	388.08	399.96	404.60
<b>Delaware</b> ..	42.8	40.1	41.2	11.31	10.60	10.31	484.07	425.06	424.77
Wilmington ..	44.0	40.9	41.0	13.54	12.94	12.85	595.76	529.25	526.85
<b>District of Columbia:</b>									
Washington MSA ..	38.8	40.0	39.3	10.53	10.95	10.93	408.56	433.00	429.55
<b>Florida</b> ..	41.0	42.0	41.0	8.14	8.28	8.27	333.74	347.76	339.07
Fort Lauderdale-Hollywood-Pompano Beach ..	42.4	44.3	41.9	7.92	8.25	8.33	335.81	365.48	349.03
Jacksonville ..	41.7	42.4	41.6	8.97	9.06	9.19	374.05	384.14	382.30
Lakeland-Winter Haven ..	40.7	41.9	( <sup>2</sup> )	7.87	8.37	( <sup>2</sup> )	320.31	350.70	( <sup>2</sup> )
Miami-Hialeah ..	39.0	40.5	39.9	7.01	7.02	\$7.13	273.39	284.31	\$284.49
Orlando ..	41.3	40.9	40.4	8.40	8.79	8.94	346.92	359.51	361.18
Pensacola ..	43.2	44.4	41.9	10.57	11.09	10.84	456.62	492.40	454.20
Tampa-St. Petersburg-Clearwater ..	40.7	41.6	40.4	7.49	7.90	7.82	304.84	328.64	315.93
West Palm Beach-Boca Raton-DeRay Beach ..	41.7	44.3	43.1	9.16	9.25	9.30	381.97	409.78	400.83
<b>Georgia</b> ..	41.6	42.4	41.1	8.40	8.64	8.62	349.44	366.34	354.28
Atlanta ..	40.7	43.1	41.5	10.00	10.23	10.05	407.00	440.91	417.08
Savannah ..	44.4	47.2	44.2	10.65	11.05	11.04	472.86	521.56	487.97
<b>Hawaii</b> ..	37.7	39.8	40.0	9.24	9.33	9.61	348.35	371.33	384.40
Honolulu ..	37.8	39.3	38.9	9.59	9.50	9.75	362.50	373.35	379.28
<b>Idaho</b> ..	38.5	39.1	38.9	9.76	9.62	9.90	375.76	376.14	385.11
<b>Illinois</b> ..	41.3	42.4	42.0	10.76	10.95	11.04	444.39	464.28	463.68
Aurora-Elgin ..	42.2	42.4	41.8	10.20	10.59	10.56	430.44	449.02	441.41
Bloomington-Normal ..	40.0	40.9	41.2	10.72	10.74	10.90	428.80	439.27	449.08
Champaign-Urbana-Rantoul ..	39.2	42.1	43.4	9.65	9.28	9.37	378.28	390.69	406.66
Chicago ..	41.9	43.6	43.0	10.58	10.68	10.66	443.30	465.65	458.38
Davenport-Rock Island-Moline ..	39.9	40.0	40.0	12.06	12.91	12.84	481.19	516.40	513.60
Decatur ..	41.1	42.3	42.9	13.95	14.06	14.14	573.35	594.74	606.61
Joliet ..	40.7	41.4	41.6	11.65	11.78	11.82	474.16	487.69	491.71
Kankakee ..	41.1	39.1	( <sup>2</sup> )	10.13	9.59	( <sup>2</sup> )	419.38	374.97	( <sup>2</sup> )
Lake County ..	40.0	42.2	9	10.86	11.43	\$11.25	434.40	482.35	\$471.38
Peoria ..	41.5	43.4	45.4	12.84	13.31	13.47	532.86	577.65	611.54
Rockford ..	44.0	42.7	42.5	11.38	11.53	11.97	500.72	492.33	508.73
Springfield ..	41.2	42.2	42.1	11.56	11.79	11.48	476.27	497.54	483.31

See footnotes at end of table



**ESTABLISHMENT DATA**  
**STATE AND AREA HOURS AND EARNINGS**  
**NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas—Continued**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Indiana</b>	419	42.9	42.2	\$10.99	\$11.32	\$11.30	\$460.48	\$485.63	\$476.86
<b>Iowa</b>	410	42.6	42.2	10.19	10.75	10.68	417.79	457.95	450.70
Cedar Rapids	40.4	41.6	41.5	11.38	12.01	11.85	459.75	499.62	491.78
Des Moines	41.4	43.8	42.7	11.25	11.91	11.78	465.75	521.66	503.01
Dubuque	41.2	43.7	41.6	9.17	11.89	11.30	377.80	519.59	470.08
Sioux City	39.1	38.1	37.8	8.79	8.45	8.34	343.69	321.95	315.26
<b>Kansas</b>	40.1	40.9	40.9	9.88	10.07	10.03	396.19	411.86	410.23
Topeka	40.7	43.4	43.7	11.22	11.71	11.46	456.65	508.21	500.80
Wichita	36.7	41.3	40.6	10.84	10.52	10.49	397.83	434.48	425.89
<b>Kentucky</b>	39.9	41.9	41.0	9.89	10.12	10.06	394.61	424.03	412.46
Lexington-Fayette	38.2	40.9	40.3	10.48	10.40	10.37	400.34	425.36	417.91
Louisville	40.5	43.9	42.6	11.18	11.77	11.71	452.79	516.70	498.85
<b>Louisiana</b>	41.2	42.7	42.3	10.86	10.78	10.90	447.43	460.31	461.07
Baton Rouge	42.5	43.4	43.2	11.89	12.60	12.69	505.33	546.84	548.21
New Orleans	39.5	41.0	40.8	10.68	10.54	10.63	421.86	432.14	433.70
Shreveport	42.4	39.6	39.2	12.01	11.47	11.00	509.22	454.21	431.20
<b>Maine</b>	40.9	41.4	41.0	8.78	8.94	8.87	359.10	370.12	363.67
Lewiston-Auburn	39.6	41.4	40.4	7.27	7.62	7.72	287.89	315.47	311.89
Portland	39.1	43.1	42.0	9.31	9.04	9.01	364.02	389.62	378.42
<b>Maryland</b>	40.5	41.4	40.8	10.08	10.26	10.21	408.24	424.76	416.57
Baltimore MSA	42.2	42.7	42.0	10.70	11.08	10.97	451.54	473.12	460.74
<b>Massachusetts</b>	40.6	42.0	42.0	9.51	10.01	9.98	386.11	420.42	419.16
Boston	40.6	41.7	41.6	10.40	10.85	10.80	422.24	452.45	449.28
Springfield	42.6	43.1	42.7	9.00	9.46	9.37	383.40	407.73	400.10
Worcester	40.1	40.9	40.7	9.55	10.24	10.23	382.96	418.82	416.36
<b>Michigan</b>	42.9	43.1	42.3	12.92	13.22	13.23	554.27	569.78	559.63
Ann Arbor	46.5	45.8	45.9	14.26	14.20	14.19	663.09	650.36	651.32
Battle Creek	43.2	45.3	44.0	13.63	14.21	14.16	588.82	643.71	623.04
Detroit	43.9	44.8	43.7	13.79	14.31	14.30	605.38	641.09	624.91
Flint	43.1	40.8	41.2	14.76	16.25	16.54	636.16	663.00	681.45
Grand Rapids	40.5	41.9	40.8	10.97	11.16	11.24	444.28	467.60	458.59
Jackson	42.9	42.5	(?)	9.98	9.95	(?)	428.14	422.87	(?)
Kalamazoo	43.8	43.4	42.0	11.96	12.25	\$11.92	523.85	531.65	\$500.64
Lansing-East Lansing	43.1	34.8	35.0	14.06	13.92	13.93	605.99	484.42	487.55
Muskegon	41.7	41.8	41.4	11.68	12.01	11.81	487.06	502.02	488.93
Saginaw-Bay City-Midland	43.4	43.6	43.4	14.27	15.03	14.85	619.32	655.31	644.49
<b>Minnesota</b>	40.8	41.6	40.3	10.32	10.42	10.46	421.06	433.47	421.54
Duluth	36.9	39.4	36.1	10.63	10.89	10.76	392.25	429.07	388.44
Minneapolis-St. Paul	40.7	41.5	40.5	11.05	11.09	11.08	449.74	460.24	448.74
St. Cloud	37.9	40.8	38.3	8.98	9.81	9.72	340.34	400.25	372.28
<b>Mississippi</b>	40.0	41.3	40.3	7.59	7.71	7.71	303.60	318.42	310.71
Jackson	40.0	41.6	41.3	8.55	8.70	8.67	342.00	361.92	358.07
<b>Missouri</b>	40.3	41.8	40.9	10.02	10.11	9.98	403.81	422.60	408.18
Kansas City	39.4	41.8	41.2	11.13	11.39	11.36	438.52	476.10	468.03
St. Joseph	41.2	41.3	(?)	9.67	10.43	(?)	398.40	430.76	(?)
St. Louis	41.4	42.2	41.1	11.49	11.77	\$11.59	475.69	496.69	\$476.35
Springfield	39.2	43.0	39.9	8.62	8.49	8.55	337.90	365.07	341.15
<b>Montana</b>	38.7	39.0	40.3	10.68	10.40	10.52	413.32	405.60	423.96
<b>Nebraska</b>	41.1	41.7	41.2	9.41	9.46	9.51	386.75	394.48	391.81
Lincoln	41.3	41.6	40.2	9.80	10.25	10.13	404.74	426.40	407.23
Omaha	40.7	42.2	42.0	10.04	10.20	10.22	408.63	430.44	429.24
<b>Nevada</b>	40.6	40.8	39.5	9.68	9.73	9.64	393.01	396.98	380.78
Las Vegas	40.7	40.1	38.4	11.77	12.43	12.51	479.04	498.44	480.38

See footnotes at end of table

**ESTABLISHMENT DATA  
STATE AND AREA HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas—Continued**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	Jan 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Jan. 1987	Dec. 1987	Jan. 1988 <sup>a</sup>
<b>New Hampshire</b>	41.7	42.0	41.4	\$9.01	\$9.54	\$9.50	\$375.72	\$400.68	\$392.35
Nashua	42.3	42.0	40.8	11.09	11.81	11.67	489.11	496.02	476.14
<b>New Jersey</b>	41.4	41.7	41.4	10.27	10.77	10.76	425.18	449.11	445.46
<b>New Mexico</b>	38.4	41.7	41.2	8.53	8.82	8.64	327.55	367.79	355.97
Albuquerque	38.8	42.3	41.5	8.85	9.27	9.30	343.38	392.12	385.95
<b>New York</b>	40.0	40.6	39.8	10.05	10.24	10.19	402.00	415.74	405.56
Albany-Schenectady-Troy	39.9	39.9	39.1	10.45	10.71	10.62	416.96	427.33	420.55
Binghamton	40.1	41.9	41.0	9.15	9.28	9.34	366.92	388.83	382.94
Buffalo	41.9	43.8	42.6	12.01	12.13	12.03	503.22	531.29	512.48
Elmira	40.6	42.9	41.5	9.48	9.66	9.64	384.89	414.41	400.06
Glens Falls	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>2</sup> )
Nassau-Suffolk	40.4	40.2	39.3	10.25	10.73	\$10.73	414.10	431.35	\$421.89
New York PMSA	37.6	37.5	37.1	9.40	9.68	9.45	353.44	383.00	350.60
New York City	37.3	37.0	36.8	9.25	9.51	9.43	345.03	351.87	347.02
Niagara Falls	41.5	42.9	42.4	12.78	13.37	13.39	530.37	573.57	567.74
Orange County	39.3	39.4	39.0	8.01	8.24	7.90	314.79	324.66	308.10
Poughkeepsie	42.8	41.5	41.4	9.09	9.74	9.71	389.05	404.21	401.99
Rochester	41.8	43.1	42.5	11.96	12.42	12.36	499.93	535.30	525.30
Rockland County	41.8	36.8	36.6	9.92	10.65	10.62	114.66	391.92	388.69
Syracuse	41.0	42.9	42.0	11.33	11.27	11.44	464.53	483.48	480.48
Utica-Rome	42.9	42.4	40.8	9.54	9.69	9.72	409.27	410.86	396.58
Westchester County	38.8	41.3	40.0	10.39	10.92	11.34	403.13	451.00	453.60
<b>North Carolina</b>	40.7	41.9	40.3	7.73	7.97	7.06	314.61	333.94	324.82
Asheville	41.4	42.6	41.5	7.75	8.09	8.07	320.85	344.63	334.91
Charlotte-Gastonia-Rock Hill	41.5	42.5	40.7	7.96	8.27	8.31	330.34	351.48	338.22
Greensboro-Winston-Salem-High Point	40.0	41.0	39.6	8.57	8.79	8.66	342.80	360.39	354.82
Raleigh-Durham	41.7	43.7	42.2	8.77	9.08	9.22	365.71	396.80	389.08
<b>North Dakota</b>	38.0	39.0	37.9	8.42	8.39	8.37	319.96	327.21	317.22
Fargo-Moorhead	38.7	39.0	36.2	8.49	8.73	8.23	311.58	340.47	297.93
<b>Ohio</b>	42.7	43.3	42.8	11.77	11.64	11.86	502.58	512.67	507.81
Akron	43.1	44.2	43.2	11.36	11.40	11.34	489.62	503.68	489.89
Canton	42.2	42.2	( <sup>2</sup> )	11.45	11.29	( <sup>2</sup> )	483.19	476.44	( <sup>2</sup> )
Cincinnati	42.3	43.9	43.2	10.84	11.12	\$11.15	458.53	488.17	\$481.68
Cleveland	43.1	44.0	43.3	11.69	11.66	11.74	503.84	513.04	508.34
Columbus	41.2	41.9	41.5	11.46	11.35	11.35	472.15	475.67	471.03
Dayton-Springfield	42.0	42.8	42.1	11.91	12.08	12.01	500.22	517.02	505.62
Toledo	43.5	43.3	44.0	12.75	12.86	13.08	554.63	556.84	575.52
Youngstown-Warren	42.8	41.7	42.0	13.49	13.43	13.41	577.37	560.03	563.22
<b>Oklahoma</b>	41.1	41.7	41.4	9.89	10.40	10.38	406.48	433.68	429.73
Oklahoma City	39.5	42.0	41.8	11.04	11.51	11.52	438.08	483.42	481.54
Tulsa	40.4	43.5	41.7	10.56	10.73	11.02	428.62	466.78	459.53
<b>Oregon</b>	38.9	39.3	39.9	10.59	10.71	10.71	411.95	420.30	427.33
Eugene-Springfield	39.7	39.8	41.0	10.45	10.88	10.57	414.87	433.02	433.37
Portland	38.9	40.2	40.3	10.98	10.88	10.78	427.12	437.38	434.43
Salem	38.0	37.6	39.2	9.55	9.45	9.37	343.80	355.32	367.30

See footnotes at end of table

**ESTABLISHMENT DATA**  
**STATE AND AREA HOURS AND EARNINGS**  
**NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas—Continued**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	Jan 1987	Dec. 1987	Jan. 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan. 1988 <sup>a</sup>	Jan 1987	Dec. 1987	Jan 1988 <sup>a</sup>
<b>Pennsylvania</b> .....	40.6	41.8	40.9	\$9.85	\$10.21	\$10.16	\$399.91	\$426.78	\$415.54
Allentown-Bethlehem .....	39.1	40.7	38.5	10.33	10.55	10.45	403.90	429.39	402.33
Altoona .....	38.9	39.3	39.6	8.91	8.63	8.64	346.60	339.16	342.14
Beaver County .....	41.4	41.6	41.9	11.11	10.92	10.90	459.95	454.27	456.71
Erie .....	41.4	43.6	43.1	10.19	10.39	10.32	421.87	453.00	444.79
Harrisburg-Lebanon-Carlisle .....	40.2	40.6	40.2	9.27	9.50	9.58	372.65	385.70	385.12
Johnstown .....	37.3	39.7	39.8	8.38	8.53	8.54	312.57	341.02	339.89
Lancaster .....	40.4	41.3	40.3	9.72	9.89	9.90	392.69	405.46	398.97
Philadelphia PMSA .....	40.9	41.2	40.1	10.67	11.07	11.04	436.40	456.08	442.70
Pittsburgh .....	41.8	43.3	41.9	11.03	11.34	11.17	461.05	491.02	468.02
Reading .....	41.4	42.1	41.7	10.01	10.56	10.60	414.41	444.58	442.02
Scranton-Wilkes-Barre .....	38.5	39.2	38.7	8.63	8.91	8.88	332.26	349.27	343.66
Sharon .....	40.3	43.1	( <sup>b</sup> )	11.31	11.45	( <sup>b</sup> )	455.79	493.50	( <sup>b</sup> )
State College .....	39.4	39.2	( <sup>b</sup> )	8.21	8.33	( <sup>b</sup> )	323.47	326.54	( <sup>b</sup> )
Williamsport .....	40.7	41.7	41.6	8.60	8.64	\$8.69	350.02	360.29	\$361.50
York .....	42.1	44.0	43.0	9.25	9.57	9.56	389.43	421.08	411.08
<b>Rhode Island</b> .....	40.2	40.2	40.1	8.10	8.38	8.40	325.62	336.88	336.84
Pawtucket-Woonsocket-Attleboro .....	41.1	40.9	40.6	7.54	7.91	7.92	309.89	323.52	321.55
Providence .....	39.7	39.8	39.6	8.10	8.37	8.39	321.57	333.13	332.24
<b>South Carolina</b> .....	41.8	42.3	41.3	8.04	8.20	8.23	336.07	346.86	339.90
Charleston .....	43.1	42.7	40.9	9.33	9.08	8.95	402.12	387.72	366.06
Columbia .....	41.6	41.8	41.2	7.84	8.08	8.14	326.14	337.74	335.37
Greenville-Spartanburg .....	41.8	42.0	40.7	7.93	8.12	8.18	331.47	341.04	332.93
<b>South Dakota</b> .....	42.2	42.5	40.9	8.04	8.16	8.04	339.29	346.80	328.84
Sioux Falls .....	45.7	43.6	42.8	8.30	8.02	7.91	379.31	349.67	338.55
<b>Tennessee</b> .....	41.5	43.0	42.4	8.74	8.90	8.92	362.71	382.70	378.21
Chattanooga .....	43.6	43.7	41.7	7.82	7.85	7.91	340.95	343.05	329.85
Johnson City-Kingsport-Bristol .....	44.6	44.5	43.3	9.18	9.33	9.39	409.43	415.19	406.59
Knoxville .....	40.9	43.2	42.3	9.01	8.99	9.07	368.51	388.37	383.66
Memphis .....	43.9	43.1	42.2	8.78	9.26	9.27	385.44	399.11	391.19
Nashville .....	42.7	43.2	42.0	9.92	10.66	10.42	423.58	460.51	437.64
<b>Texas</b> .....	41.4	42.8	41.6	9.79	9.99	9.95	405.31	427.57	413.92
Dallas .....	41.8	42.3	41.1	9.58	9.93	9.73	400.44	420.04	399.90
Ft. Worth-Arlington .....	40.9	42.4	41.0	9.58	10.39	10.35	391.82	440.54	424.35
Houston .....	43.8	44.5	43.7	11.20	11.42	11.11	490.56	508.19	485.51
San Antonio .....	40.8	40.1	39.1	7.90	7.59	7.55	322.32	304.36	295.21
<b>Utah</b> .....	38.2	40.7	39.3	10.12	10.04	9.94	386.58	408.63	390.64
Salt Lake City-Ogden .....	40.3	40.9	40.2	9.81	9.99	10.07	395.34	408.59	404.81
<b>Vermont</b> .....	40.7	42.1	40.6	9.01	9.23	9.20	366.71	388.58	373.52
Burlington .....	42.0	41.3	40.6	9.98	9.71	9.66	419.16	401.02	393.01
<b>Virginia</b> .....	40.5	41.8	40.9	9.05	9.31	9.33	366.53	389.16	381.60
Bristol .....	42.3	43.4	43.9	7.50	8.04	8.03	317.25	348.94	352.52
Charlottesville .....	41.5	43.4	40.7	7.36	7.46	7.43	305.44	323.76	302.40
Danville .....	40.8	43.1	41.3	8.31	8.55	8.61	339.05	368.51	355.59
Lynchburg .....	41.3	42.8	41.4	8.57	8.67	8.51	353.94	371.08	352.31
Northern Virginia .....	39.8	38.9	38.5	9.48	10.23	10.07	377.30	408.18	387.70
Richmond-Petersburg .....	41.0	42.4	41.8	11.35	12.10	12.07	465.35	513.04	504.53
Roanoke .....	40.9	43.0	40.6	8.76	9.11	9.15	358.28	391.73	371.49

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas—Continued**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Washington</b> .....	39.7	39.9	40.2	\$11.77	\$11.69	\$11.84	\$467.27	\$466.43	\$475.97
<b>West Virginia</b> .....	39.6	41.4	40.9	10.40	10.71	10.56	411.84	443.39	431.90
Charleston .....	41.7	43.3	42.9	13.10	13.20	13.11	546.27	571.56	562.42
Huntington-Ashland .....	39.3	42.0	41.5	11.55	12.27	11.98	453.92	515.34	497.17
Parkersburg-Manetta .....	40.2	42.8	42.6	12.21	11.77	11.66	490.84	503.76	496.72
Wheeling .....	40.0	42.1	41.4	10.99	12.01	11.84	439.60	505.62	490.18
<b>Wisconsin</b> .....	41.3	42.3	41.7	10.58	10.72	10.72	436.95	453.46	447.02
Appleton-Oshkosh .....	42.5	44.0	43.2	10.67	11.17	11.12	453.48	491.48	480.38
Eau Claire .....	40.6	41.4	42.7	10.47	11.02	10.94	425.08	456.23	467.14
Green Bay .....	41.3	42.5	42.6	11.41	11.50	11.39	471.23	488.75	485.21
Janesville-Beloit .....	39.0	40.1	40.6	12.06	12.08	12.37	470.34	484.41	502.22
Kenosha .....	41.1	40.6	41.2	11.72	12.57	12.70	481.69	510.34	523.24
La Crosse .....	39.9	40.8	39.1	8.99	8.95	8.98	358.70	365.16	351.12
Madison .....	40.4	40.8	40.9	9.88	10.20	10.26	399.15	416.16	419.63
Milwaukee .....	41.4	42.6	41.9	11.83	11.71	11.65	489.76	498.85	488.14
Racine .....	42.4	43.5	41.8	10.81	11.29	11.17	458.34	491.12	466.91
Sheboygan .....	41.5	42.7	(?)	9.68	9.71	(?)	401.72	414.62	(?)
Wausau .....	42.4	44.1	41.7	9.89	10.01	\$10.22	419.34	441.44	\$426.17
<b>Wyoming</b> .....	39.1	38.3	38.0	9.86	8.98	8.65	385.53	343.93	328.70
<b>Puerto Rico</b> .....	39.2	38.9	38.5	5.43	5.44	5.45	212.86	211.62	209.83
<b>Virgin Islands</b> .....	41.1	41.7	38.3	9.51	9.75	9.88	390.86	406.57	378.40

<sup>1</sup> Not available

<sup>2</sup> Publication of data has been suspended because of budget cuts

<sup>a</sup> = preliminary

NOTE: Area definitions are published annually in the May issue of this

publication. All State and area data have been adjusted to March 1987 benchmarks, except Colorado. Data for Colorado have been adjusted to December 1986 benchmarks.

**PRODUCTIVITY DATA  
SEASONALLY ADJUSTED**

**C-9. Hours of wage and salary workers in nonagricultural establishments by major industry, seasonally adjusted**

Industry	Millions of hours (annual rate) <sup>1</sup>			Percent change		
	Dec. 1987 <sup>a</sup>	Jan. 1988 <sup>a</sup>	Feb. 1988 <sup>a</sup>	Feb. 1987 to Feb. 1988 <sup>a</sup>	Dec. 1987 to Jan. 1988 <sup>a</sup>	Jan. 1988 to Feb. 1988 <sup>a</sup>
Total .....	192,631	192,852	194,705	3.1	0.1	1.0
Private sector .....	157,874	158,534	160,047	3.3	.4	1.0
Mining .....	1,670	1,634	1,637	3.4	-2.1	.2
Construction .....	10,136	9,740	10,079	.9	-3.9	3.5
Manufacturing .....	41,238	41,324	41,271	2.0	.2	-.1
Durable goods .....	24,496	24,543	24,516	1.8	2	-.1
Nondurable goods .....	16,742	16,781	16,755	2.5	2	-.2
Transportation and public utilities .....	11,148	11,234	11,231	3.4	.8	.0
Wholesale trade .....	11,623	11,685	11,754	2.6	.5	.6
Retail trade .....	27,593	28,072	28,548	3.0	1.7	1.7
Finance, insurance, and real estate .....	12,506	12,607	12,710	3.4	.8	.8
Services .....	41,950	42,238	42,817	5.5	.7	1.4
Government .....	34,757	34,318	34,658	2.0	-1.3	1.0

<sup>1</sup> Total hours paid for 1 week in the month, seasonally adjusted, multiplied by 52.

<sup>a</sup> = preliminary.

<sup>a</sup> = revised.

NOTE: Data refer to hours of all employees—production workers,

nonsupervisory workers, and salaried workers—and are based largely on establishment data. See *BLS Handbook of Methods*, BLS Bulletin 2134-1, chapter 13, Productivity Measures: Business Economy and Major Sectors.

SOURCE: Office of Productivity and Technology (202 523 9261)



**PRODUCTIVITY DATA  
SEASONALLY ADJUSTED**

**C-10. Indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted**

(1977 = 100)

Item	Annual average		Quarterly index										
	1986	1987 <sup>1</sup>	1985			1986				1987			
			II	III	IV	I	II	III	IV	I	II	III	IV <sup>2</sup>
Business sector													
Output per hour of all persons .....	109.5	110.6	107.2	108.2	107.9	109.5	109.7	109.6	109.6	109.7	110.1	111.3	111.3
Output .....	128.0	132.3	123.3	124.7	125.3	127.3	127.5	128.1	129.0	130.2	131.1	133.1	134.9
Hours .....	116.9	119.7	115.0	115.2	116.1	116.3	116.3	116.9	117.8	118.7	119.1	119.6	121.2
Compensation per hour .....	182.8	188.2	174.6	177.0	179.3	180.7	182.2	183.6	185.2	185.8	187.3	189.1	190.5
Real compensation per hour <sup>1</sup> .....	101.1	100.4	98.6	99.5	99.7	100.1	101.3	101.5	101.7	100.7	100.3	100.3	100.2
Unit labor costs .....	166.9	170.2	162.8	163.6	166.1	165.0	166.2	167.5	169.0	169.4	170.2	169.8	171.2
Unit nonlabor payments .....	163.8	169.7	160.4	161.8	160.2	163.1	163.9	165.7	162.4	166.0	188.6	172.2	171.9
Implicit price deflator .....	165.8	170.0	162.0	163.0	164.0	164.3	165.4	166.9	166.7	168.2	169.6	170.7	171.5
Nonfarm business sector													
Output per hour of all persons .....	107.5	108.5	105.7	106.4	105.9	107.7	107.7	107.5	107.5	107.6	108.0	109.1	109.2
Output .....	127.5	131.9	123.1	124.3	124.9	126.9	127.1	127.6	128.5	129.7	130.7	132.7	134.6
Hours .....	118.6	121.6	116.4	116.9	117.9	117.9	118.0	118.7	119.6	120.6	121.1	121.7	123.2
Compensation per hour .....	182.0	187.1	174.1	176.2	178.3	180.0	181.3	182.6	184.4	184.9	186.3	187.9	189.5
Real compensation per hour <sup>1</sup> .....	100.6	99.8	98.4	99.0	99.2	99.8	100.8	100.9	101.2	100.2	99.7	99.7	99.6
Unit labor costs .....	169.3	172.5	164.7	165.7	168.3	167.2	168.4	169.8	171.5	171.8	172.5	172.2	173.5
Unit nonlabor payments .....	165.2	170.7	161.5	163.4	160.8	164.7	165.2	167.0	163.9	167.4	169.2	173.0	172.9
Implicit price deflator .....	167.8	171.9	163.6	164.9	165.7	166.4	167.3	168.8	168.8	170.3	171.4	172.5	173.3
Manufacturing													
Output per hour of all persons .....	128.8	133.0	124.1	125.3	126.1	127.6	128.4	129.3	129.8	130.8	132.9	134.1	134.2
Output .....	125.9	131.3	122.2	123.2	124.1	125.2	125.3	126.0	127.1	128.4	129.9	132.3	134.6
Hours .....	97.8	98.7	98.5	98.3	98.4	98.1	97.5	97.5	97.9	98.1	97.7	98.7	100.3
Compensation per hour .....	182.7	185.1	176.1	178.0	180.2	181.0	182.1	183.1	184.3	183.9	184.8	185.4	186.3
Real compensation per hour <sup>1</sup> .....	101.0	98.7	99.5	100.0	100.3	100.3	101.3	101.2	101.2	99.6	98.9	98.3	98.0
Unit labor costs .....	141.8	139.1	142.0	142.1	142.9	141.9	141.8	141.7	142.0	140.5	139.0	138.2	138.9
Durable goods													
Output per hour of all persons .....	136.8	142.1	129.6	131.6	133.1	135.3	136.0	137.5	138.4	139.9	141.7	143.0	143.7
Output .....	134.1	139.6	129.3	130.8	132.2	133.6	133.2	134.1	135.3	136.9	137.8	140.1	143.5
Hours .....	98.0	98.2	98.8	99.4	99.4	98.8	98.0	97.5	97.8	97.8	97.2	98.0	99.9
Compensation per hour .....	181.4	183.3	174.4	176.6	179.4	179.9	180.8	181.6	183.1	182.2	182.9	183.4	184.4
Real compensation per hour <sup>1</sup> .....	100.3	97.8	98.5	99.2	99.8	99.7	100.5	100.4	100.5	98.7	98.0	97.3	97.0
Unit labor costs .....	132.6	129.0	134.6	134.2	134.8	133.0	132.9	132.1	132.3	130.2	129.1	128.3	128.4
Nondurable goods													
Output per hour of all persons .....	116.8	119.7	115.4	115.6	115.4	116.0	117.0	117.0	117.1	117.4	119.9	121.1	120.1
Output .....	113.7	118.9	111.5	111.8	112.1	112.7	113.4	113.9	114.9	115.8	118.1	120.6	121.2
Hours .....	97.4	99.4	96.6	96.8	97.1	97.2	96.9	97.3	98.1	98.6	98.5	99.6	100.9
Compensation per hour .....	184.8	188.4	178.6	180.0	181.2	182.7	184.3	185.8	186.5	186.9	189.2	189.0	189.8
Real compensation per hour <sup>1</sup> .....	102.2	100.5	100.9	101.1	100.8	101.2	102.5	102.7	102.4	101.3	100.8	100.3	99.8
Unit labor costs .....	158.3	157.5	154.7	155.7	157.0	157.5	157.5	158.8	159.3	159.1	156.9	156.1	158.0
Nonfinancial corporations <sup>2</sup>													
Output per all-employee hour .....	109.9	110.3	107.7	109.2	108.9	109.8	109.7	109.9	110.5	109.7	109.9	110.8	( <sup>3</sup> )
Output .....	129.4	132.9	125.4	127.4	127.7	129.1	128.8	129.3	130.4	130.9	131.6	133.7	( <sup>3</sup> )
Hours .....	117.7	120.5	116.4	116.6	117.3	117.6	117.4	117.6	118.0	119.3	119.8	120.6	( <sup>3</sup> )
Compensation per hour .....	178.9	182.7	171.8	173.8	175.7	177.2	178.4	179.5	181.0	180.8	182.0	183.3	( <sup>3</sup> )
Real compensation per hour <sup>1</sup> .....	98.9	97.5	97.0	97.6	97.8	98.2	99.2	99.2	99.4	98.0	97.5	97.2	( <sup>3</sup> )
Total unit costs .....	167.7	170.8	164.3	163.7	166.0	166.3	167.2	168.5	168.7	169.7	170.9	171.0	( <sup>3</sup> )
Unit labor costs .....	162.8	165.6	159.5	159.1	161.4	161.5	162.6	163.2	163.8	164.8	165.6	165.5	( <sup>3</sup> )
Unit nonlabor costs .....	182.2	186.3	178.7	177.5	179.4	180.7	180.6	184.2	183.2	184.1	186.6	187.3	( <sup>3</sup> )
Unit profits .....	129.3	137.7	132.2	142.5	128.7	129.7	129.5	130.6	127.7	132.2	132.9	142.1	( <sup>3</sup> )
Implicit price deflator .....	163.1	166.8	160.5	161.2	161.5	161.9	162.7	164.0	163.8	165.2	166.3	167.5	( <sup>3</sup> )

<sup>1</sup> Measures of real hourly compensation incorporate the new seasonal adjustment factors and re-indexed values of the Consumer Price Index for All Urban Consumers

<sup>2</sup> The 1987 annual averages for the nonfinancial corporate sector are

preliminary.

<sup>3</sup> Not available.

<sup>4</sup> = revised.

SOURCE: Office of Productivity and Technology (202 523 9261).

**PRODUCTIVITY DATA  
SEASONALLY ADJUSTED**

**C-11. Percent changes from the preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted annual rates**

Item	Percent change from											
	Previous quarter						Same quarter, previous year					
	III 1986	IV 1986	I 1987	II 1987	III 1987	IV 1987 <sup>1</sup>	III 1986	IV 1986	I 1987	II 1987	III 1987	IV 1987 <sup>1</sup>
<b>Business sector</b>												
Output per hour of all persons .....	-0.3	-0.1	0.5	1.4	4.7	-0.2	1.3	1.5	0.2	0.4	1.6	1.6
Output .....	1.8	3.0	3.5	3.0	6.3	5.4	2.7	2.9	2.3	2.8	3.9	4.6
Hours .....	2.1	3.1	3.0	1.6	1.5	5.6	1.5	1.4	2.1	2.5	2.3	2.9
Compensation per hour .....	3.0	3.6	1.4	3.3	3.8	3.1	3.7	3.3	2.8	2.8	3.0	2.9
Real compensation per hour <sup>2</sup> .....	.6	.8	-3.8	-1.5	.0	-5	2.0	2.0	.6	-1.0	-1.1	-1.5
Unit labor costs .....	3.3	3.7	.9	1.8	-9	3.3	2.4	1.8	2.7	2.4	1.4	1.3
Unit nonlabor payments .....	4.5	-7.7	9.0	6.4	8.8	-5	2.4	1.4	1.8	2.8	3.9	5.8
Implicit price deflator .....	3.7	-5	3.7	3.4	2.5	1.9	2.4	1.7	2.3	2.6	2.3	2.9
<b>Nonfarm business sector</b>												
Output per hour of all persons .....	-6	.0	.4	1.4	4.2	.3	1.1	1.5	-.1	.3	1.5	1.6
Output .....	1.7	2.9	3.8	3.2	6.3	5.6	2.6	2.9	2.2	2.9	4.0	4.7
Hours .....	2.3	2.9	3.4	1.7	2.0	5.3	1.6	1.4	2.3	2.6	2.5	3.1
Compensation per hour .....	2.8	4.0	1.1	3.0	3.6	3.4	3.6	3.4	2.7	2.7	2.9	2.8
Real compensation per hour <sup>2</sup> .....	.5	1.3	-4.1	-1.8	-.3	-2	1.9	2.1	.4	-1.1	-1.2	-1.6
Unit labor costs .....	3.5	4.0	.8	1.5	-.8	3.1	2.5	1.9	2.8	2.4	1.4	1.2
Unit nonlabor payments .....	4.2	-7.2	8.8	4.6	9.3	-.4	2.2	1.9	1.6	2.4	3.6	5.5
Implicit price deflator .....	3.7	.0	3.4	2.6	2.7	1.9	2.4	1.9	2.4	2.4	2.2	2.6
<b>Manufacturing</b>												
Output per hour of all persons .....	2.7	1.7	3.2	6.4	3.7	.2	3.2	2.9	2.5	3.5	3.7	3.4
Output .....	2.3	3.7	4.0	4.7	7.6	7.0	2.3	2.4	2.5	3.7	5.0	5.8
Hours .....	-.4	2.0	.8	-1.6	3.8	6.8	-.9	-.5	.0	.2	1.2	2.4
Compensation per hour .....	2.2	2.7	-1.0	2.0	1.3	2.1	2.9	2.3	1.3	1.5	1.2	1.1
Real compensation per hour <sup>2</sup> .....	-.1	-.1	-6.1	-2.7	-2.4	-1.5	1.2	1.0	-.7	-2.3	-2.9	-3.2
Unit labor costs .....	-.5	.9	-4.1	-4.2	-2.3	1.8	-.3	-.6	-1.0	-2.0	-2.4	-2.2
<b>Durable goods</b>												
Output per hour of all persons .....	4.4	2.6	4.5	5.3	3.6	2.0	4.5	4.0	3.4	4.2	4.0	3.8
Output .....	2.7	3.8	4.5	2.8	7.0	9.9	2.5	2.4	2.4	3.4	4.5	6.0
Hours .....	-1.7	1.1	.0	-2.4	3.3	7.7	-1.9	-1.5	-.9	-.7	.5	2.1
Compensation per hour .....	1.7	3.4	-1.9	1.6	1.1	2.2	2.8	2.1	1.3	1.2	1.0	.7
Real compensation per hour <sup>2</sup> .....	-.6	.7	-6.9	-3.1	-2.6	-1.4	1.1	.7	-1.0	-2.5	-3.0	-3.5
Unit labor costs .....	-2.6	.8	-6.1	-3.5	-2.4	.1	-1.6	-1.8	-2.1	-2.9	-2.8	-3.0
<b>Nondurable goods</b>												
Output per hour of all persons .....	.1	.4	1.1	8.7	3.9	-3.1	1.3	1.4	1.3	2.5	3.5	2.6
Output .....	1.7	3.6	3.1	8.2	8.8	2.1	1.8	2.5	2.7	4.1	5.9	5.5
Hours .....	1.6	3.3	1.9	-.5	4.7	5.4	.6	1.1	1.4	1.6	2.3	2.8
Compensation per hour .....	3.4	1.5	.7	2.8	1.7	1.7	3.3	2.9	2.3	2.1	1.7	1.7
Real compensation per hour <sup>2</sup> .....	1.0	-1.1	-4.5	-1.9	-2.0	-1.9	1.6	1.6	.0	-1.7	-2.4	-2.6
Unit labor costs .....	3.3	1.2	-.5	-5.4	-2.1	4.9	2.0	1.5	1.0	-.4	-1.7	-.8
<b>Nonfinancial corporations<sup>2</sup></b>												
Output per all-employee hour .....	.9	2.1	-2.9	.7	3.3	( <sup>3</sup> )	.7	1.5	.0	.2	.8	( <sup>3</sup> )
Output .....	1.6	3.4	1.5	2.2	6.4	( <sup>3</sup> )	1.5	2.1	1.4	2.2	3.4	( <sup>3</sup> )
Hours .....	.7	1.3	4.6	1.6	3.0	( <sup>3</sup> )	.8	.6	1.5	2.0	2.6	( <sup>3</sup> )
Compensation per hour .....	2.5	3.5	-.5	2.6	2.9	( <sup>3</sup> )	3.3	3.0	2.0	2.0	2.1	( <sup>3</sup> )
Real compensation per hour <sup>2</sup> .....	.1	.7	-5.6	-2.1	-.9	( <sup>3</sup> )	1.6	1.7	-.2	-1.7	-2.0	( <sup>3</sup> )
Total unit costs .....	3.3	.3	2.4	2.9	.1	( <sup>3</sup> )	2.9	1.6	2.0	2.2	1.4	( <sup>3</sup> )
Unit labor costs .....	1.5	1.3	2.5	2.0	-.4	( <sup>3</sup> )	2.6	1.5	2.1	1.8	1.3	( <sup>3</sup> )
Unit nonlabor costs .....	8.2	-2.3	2.2	5.4	1.5	( <sup>3</sup> )	3.8	2.1	1.9	3.3	1.7	( <sup>3</sup> )
Unit profits .....	3.3	-8.5	14.7	2.1	30.7	( <sup>3</sup> )	-8.4	-.8	1.9	2.6	8.8	( <sup>3</sup> )
Implicit price deflator .....	3.3	-.5	3.5	2.8	2.8	( <sup>3</sup> )	1.7	1.4	2.0	2.3	2.1	( <sup>3</sup> )

<sup>1</sup> Measures of real hourly compensation incorporate the new seasonal adjustment factors and re-indexed values of the Consumer Price Index for All Urban Consumers

<sup>2</sup> The 1987 annual averages for the nonfinancial corporate sector are

preliminary.

<sup>3</sup> Not available.

<sup>4</sup> = revised.

SOURCE: Office of Productivity and Technology (202 523 9261).

**STATE AND AREA LABOR FORCE DATA**  
**NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Alabama</b>	1,865.5	1,904.7	1,873.5	174.8	135.5	148.7	9.4	7.1	7.9
Birmingham	440.6	450.4	441.9	36.2	26.6	29.0	8.2	5.9	6.6
Huntsville	126.9	133.2	130.2	8.2	6.1	6.8	6.4	4.6	5.2
Mobile	208.2	212.1	208.3	22.0	19.5	20.4	10.6	9.2	9.8
Montgomery	134.4	138.7	135.8	9.6	8.1	8.4	7.1	5.8	6.2
Tuscaloosa	68.9	71.0	69.6	4.9	3.8	4.3	7.1	5.4	6.2
<b>Alaska</b>	233.0	237.7	233.3	30.6	23.7	25.2	13.1	10.0	10.8
<b>Arizona</b>	1,591.9	1,652.3	1,640.6	108.5	95.2	91.5	6.8	5.8	5.6
Phoenix	985.8	1,020.8	1,014.2	56.8	50.0	48.1	5.8	4.9	4.7
Tucson	303.0	315.4	314.2	17.6	15.2	14.8	5.8	4.8	4.7
<b>Arkansas</b>	1,051.0	1,086.8	1,090.8	104.4	87.2	100.3	9.9	8.0	9.2
Fayetteville-Springdale	54.4	58.4	57.7	2.9	2.7	2.8	5.3	4.6	4.9
Fort Smith	87.2	92.6	92.1	6.2	5.5	6.5	7.1	6.0	7.1
Little Rock-North Little Rock	251.7	260.6	260.9	19.5	17.5	19.6	7.8	6.7	7.5
Pine Bluff	36.1	36.4	36.3	4.0	3.1	3.3	11.0	8.6	9.1
<b>California<sup>1</sup></b>	13,351.4	13,861.6	13,924.5	915.2	677.0	780.0	6.9	4.9	5.6
Anaheim-Santa Ana	1,262.6	1,303.1	1,305.4	51.9	32.6	37.9	4.1	2.5	2.9
Bakersfield	222.8	229.7	224.9	29.9	19.9	21.6	13.4	8.6	9.6
Fresno	288.1	290.4	289.5	40.8	28.4	32.2	14.2	9.8	11.1
Los Angeles-Long Beach <sup>1</sup>	4,087.0	4,320.0	4,331.0	230.0	206.0	242.0	5.6	4.8	5.6
Modesto	145.0	148.9	150.5	22.8	16.3	18.1	15.7	10.9	12.0
Oakland	1,008.9	1,030.9	1,037.7	64.1	41.8	48.6	6.4	4.1	4.7
Oxnard-Ventura	324.7	336.3	337.4	23.5	15.3	17.6	7.2	4.5	5.2
Riverside-San Bernardino	871.4	922.3	936.2	56.9	42.5	49.2	6.5	4.6	5.3
Sacramento	650.1	685.0	691.5	46.3	35.9	39.9	7.1	5.2	5.8
San Diego	1,020.8	1,069.4	1,082.8	56.1	39.2	45.4	5.5	3.7	4.2
San Francisco	851.0	870.6	877.1	41.2	26.3	30.7	4.8	3.0	3.5
San Jose	800.2	806.3	809.1	48.0	28.2	32.5	6.0	3.5	4.0
Santa Barbara-Santa Maria-Lompoc	173.4	175.9	177.3	10.8	7.2	8.2	6.2	4.1	4.6
Santa Rosa-Petaluma	179.9	188.6	190.7	11.2	8.5	9.9	6.2	4.5	5.2
Stockton	183.9	182.2	182.3	24.1	17.8	19.9	13.1	9.8	10.9
Vallejo-Fairfield-Napa	175.9	184.2	185.7	13.9	9.9	11.3	7.9	5.4	6.1
<b>Colorado</b>	1,694.6	1,692.3	1,714.1	147.5	124.6	133.1	8.7	7.4	7.8
Boulder-Longmont	129.1	132.4	131.7	8.7	7.5	7.5	6.7	5.7	5.7
Denver	890.9	892.6	897.9	70.7	60.8	61.9	7.9	6.8	6.9
<b>Connecticut</b>	1,733.7	1,774.4	1,721.9	68.7	55.6	63.8	4.0	3.1	3.7
Bridgeport-Milford	227.5	232.5	226.7	11.4	8.1	10.3	5.0	3.5	4.5
Hartford	422.7	432.7	423.0	14.9	13.9	14.8	3.5	3.2	3.5
New Haven-Meriden	266.1	274.0	266.7	9.6	8.2	9.3	3.6	3.0	3.5
Stamford	116.9	119.9	115.9	3.1	2.5	2.4	2.6	2.1	2.1
Waterbury	102.8	103.4	100.4	5.7	3.9	5.0	5.5	3.8	4.9
<b>Delaware</b>	321.3	340.1	329.8	13.0	8.9	14.6	4.0	2.6	4.4
Wilmington	282.9	296.9	(?)	12.7	8.6	(?)	4.5	2.9	(?)
<b>District of Columbia</b>	321.3	334.9	324.1	23.3	19.7	19.8	7.3	5.9	6.1
Washington	2,062.4	2,152.7	(?)	69.8	61.9	(?)	3.4	2.9	(?)
<b>Florida<sup>1</sup></b>	5,664.1	6,002.1	5,917.3	327.4	297.3	295.4	5.8	5.0	5.0
Daytona Beach	139.4	147.2	145.3	7.7	6.4	6.6	5.5	4.4	4.6
Fort Lauderdale-Hollywood-Pompano Beach	595.1	631.1	626.3	27.1	24.8	26.4	4.6	3.9	4.2
Fort Myers-Cape Coral	129.5	139.1	138.3	5.4	4.7	5.0	4.2	3.4	3.6
Jacksonville	422.4	453.0	449.0	23.0	23.3	24.6	5.4	5.1	5.5
Melbourne-Titusville-Palm Bay	166.3	176.8	176.6	11.7	7.7	8.7	7.0	4.4	4.9
Miami-Hialeah	888.8	920.7	905.9	57.4	49.6	47.7	6.5	5.4	5.3
Orlando	525.4	565.8	554.4	26.4	25.0	26.5	5.0	4.4	4.8
Pensacola	142.7	151.3	146.4	10.6	10.5	9.1	7.4	7.0	6.2
Sarasota	112.6	119.5	118.5	4.3	4.4	4.3	3.8	3.6	3.6
Tallahassee	117.8	124.2	122.1	4.8	4.6	5.2	4.1	3.7	4.3
Tampa-St. Petersburg-Clearwater	925.4	975.6	962.4	50.4	46.0	45.4	5.4	4.7	4.7
West Palm Beach-Boca Raton-Deer Beach	384.1	411.1	406.0	19.1	17.2	16.2	5.0	4.2	4.0

See footnotes at end of table

**STATE AND AREA LABOR FORCE DATA  
NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas—Continued**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	Jan 1987	Dec 1987	Jan 1988*	Jan 1987	Dec 1987	Jan 1988*	Jan 1987	Dec 1987	Jan 1988*
<b>Georgia</b> .....	2,993.8	3,068.8	3,026.2	180.9	146.9	193.1	6.0	4.8	6.4
Athens .....	71.2	71.9	72.8	3.3	3.0	4.8	4.6	4.1	6.5
Atlanta .....	1,410.8	1,448.8	1,432.3	67.1	57.9	76.9	4.8	4.0	5.4
Augusta .....	177.3	179.8	175.8	11.5	9.2	10.6	6.5	5.1	6.1
Columbus .....	98.9	101.2	98.6	7.3	6.8	6.7	7.4	6.8	6.8
Macon-Warner Robins .....	126.9	128.6	126.3	7.4	5.8	7.0	5.8	4.5	5.5
Savannah .....	108.7	111.0	109.5	7.0	5.9	7.2	6.4	5.3	6.6
<b>Hawaii</b> .....	495.5	524.6	523.0	20.9	19.9	20.4	4.2	3.8	3.9
Honolulu .....	369.7	392.3	389.8	14.5	13.5	13.9	3.9	3.5	3.6
<b>Idaho</b> .....	455.8	464.6	453.1	48.0	37.4	42.9	10.5	8.0	9.5
Boise City .....	103.0	105.4	103.3	7.4	5.7	6.6	7.1	5.5	6.4
<b>Illinois</b> .....	5,608.0	5,715.8	5,740.9	461.4	395.7	423.6	8.2	6.9	7.4
Aurora-Elgin .....	168.9	175.6	174.1	12.9	9.6	10.7	7.7	5.5	6.1
Bloomington-Normal .....	65.0	65.6	65.8	3.6	3.4	3.5	5.6	5.2	5.3
Champaign-Urbana-Rantoul .....	83.6	87.1	85.2	4.4	3.8	4.0	5.3	4.4	4.7
Chicago .....	3,073.5	3,150.4	3,165.4	221.1	194.0	202.6	7.2	6.2	6.4
Davenport-Rock Island-Moline .....	181.6	180.5	181.6	16.9	14.5	15.3	9.3	8.0	8.4
Decatur .....	58.3	58.2	58.1	6.2	5.1	5.8	10.6	8.8	10.0
Joliet .....	191.5	194.4	197.2	16.6	14.7	16.5	8.7	7.6	8.4
Lake County .....	249.5	266.8	265.2	13.6	12.1	12.5	5.5	4.5	4.7
Peoria .....	152.4	150.7	150.2	14.3	10.8	11.4	9.4	7.2	7.6
Rockford .....	146.0	144.1	146.9	13.0	11.8	12.4	8.9	8.2	8.4
Springfield .....	106.6	108.3	109.2	6.6	6.3	6.6	6.2	5.8	6.1
<b>Indiana</b> .....	2,718.1	2,815.9	2,708.6	214.9	168.2	175.9	7.9	6.0	6.5
Anderson .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Bloomington .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Elkhart-Goshen .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Evansville .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Fort Wayne .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Gary-Hammond .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Indianapolis .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Lafayette .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Muncie .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
South Bend-Mishawaka .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Terre Haute .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
<b>Iowa</b> .....	1,425.3	1,448.9	1,454.0	112.6	69.6	101.4	7.9	4.8	7.0
Cedar Rapids .....	89.7	94.3	94.4	6.0	3.6	5.4	6.7	3.8	5.7
Des Moines .....	214.7	226.8	226.1	12.8	7.7	11.4	6.0	3.4	5.0
Dubuque .....	43.2	45.2	45.9	3.8	2.6	4.0	8.8	5.7	8.7
Sioux City .....	(?)	(?)	58.2	(?)	(?)	4.4	(?)	(?)	7.5
Waterloo-Cedar Falls .....	67.9	68.9	68.5	8.2	4.3	5.9	12.1	6.2	8.6
<b>Kansas</b> .....	1,220.6	1,276.6	1,249.9	77.1	63.5	69.8	6.3	5.0	5.6
Lawrence .....	37.9	41.1	39.3	1.6	1.8	1.7	4.3	4.3	4.4
Topeka .....	87.6	92.1	90.7	4.8	4.8	4.6	5.5	5.3	5.1
Wichita .....	241.0	255.1	251.5	15.8	12.5	14.9	6.6	4.9	5.9
<b>Kentucky</b> .....	1,684.9	1,709.9	(?)	176.9	139.8	(?)	10.5	8.2	(?)
Lexington-Fayette .....	178.1	184.9	(?)	11.2	9.0	(?)	6.3	4.9	(?)
Louisville .....	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
Owensboro .....	44.7	45.6	(?)	5.3	4.2	(?)	11.7	9.3	(?)
<b>Louisiana</b> .....	1,956.6	1,922.5	1,913.1	283.5	182.3	229.9	14.5	9.5	12.0
Alexandria .....	60.7	61.5	60.8	7.1	5.0	6.4	11.7	8.1	10.5
Baton Rouge .....	263.0	264.5	261.2	31.0	21.4	26.5	11.8	8.1	10.1
Houma-Thibodaux .....	74.8	70.6	69.7	15.5	7.7	9.9	20.7	10.9	14.1
Lafayette .....	102.3	99.0	97.9	16.8	9.1	11.2	16.4	9.1	11.4
Monroe .....	69.8	69.9	68.2	8.3	5.8	7.9	11.9	8.3	11.6
New Orleans .....	602.7	596.1	591.7	68.7	48.5	57.9	11.4	8.1	9.8
Shreveport .....	168.3	165.9	166.7	22.7	15.2	19.5	13.5	9.1	11.7
<b>Maine</b> .....	549.8	589.5	592.1	34.2	21.6	32.5	6.2	3.7	5.5
Lewiston-Auburn .....	40.2	41.7	42.5	2.9	1.9	2.6	7.1	4.6	6.0
Portland .....	117.2	128.2	126.2	3.7	2.4	3.6	3.2	1.9	2.9

See footnotes at end of table

**STATE AND AREA LABOR FORCE DATA  
NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas—Continued**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	Jan. 1987	Dec 1987	Jan. 1988 <sup>a</sup>	Jan. 1987	Dec. 1987	Jan 1988 <sup>a</sup>	Jan. 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Maryland</b> .....	2,365.7	2,423.0	2,403.2	114.2	102.5	123.8	4.8	4.2	5.2
Baltimore .....	1,153.0	1,172.6	( <sup>2</sup> )	62.3	56.5	( <sup>2</sup> )	5.4	4.8	( <sup>2</sup> )
<b>Massachusetts</b> <sup>1</sup> .....	3,029.1	3,087.3	3,108.7	123.7	81.8	117.7	4.1	2.6	3.8
Boston .....	1,506.7	1,539.7	1,547.7	50.0	35.4	47.7	3.3	2.3	3.1
Brockton .....	95.1	96.9	96.8	4.3	2.7	4.1	4.5	2.8	4.2
Fall River .....	76.4	75.8	76.7	5.9	3.3	5.4	7.7	4.4	7.0
Fitchburg-Leominster .....	45.8	45.2	45.2	2.5	1.4	2.1	5.4	3.2	4.7
Lawrence-Haverhill .....	178.2	182.2	185.9	8.3	6.5	8.9	4.7	3.5	4.8
Lowell .....	147.0	148.8	148.6	6.2	4.0	5.8	4.2	2.7	3.9
New Bedford .....	84.8	87.1	84.6	6.1	3.3	5.6	7.2	3.9	6.6
Springfield .....	247.7	252.9	255.9	10.7	6.5	9.6	4.3	2.6	3.8
Worcester .....	208.8	218.5	218.8	7.9	5.5	7.6	3.8	2.5	3.5
<b>Michigan</b> <sup>1</sup> .....	4,415.9	4,491.2	4,426.2	357.8	372.3	472.1	8.1	8.3	10.7
Ann Arbor .....	153.6	158.9	155.1	6.2	5.9	7.6	4.0	3.7	4.9
Battle Creek .....	62.3	64.0	63.6	4.7	5.3	7.1	7.6	8.3	11.2
Benton Harbor .....	75.2	76.6	75.0	6.2	5.7	6.7	8.2	7.5	8.9
Detroit .....	2,135.6	2,164.3	2,133.2	158.2	175.9	218.7	7.4	8.1	10.3
Flint .....	200.9	199.8	198.2	24.6	27.8	35.1	12.2	13.9	17.7
Grand Rapids .....	339.3	348.2	339.2	22.5	21.2	25.6	6.6	6.1	7.6
Kalamazoo .....	111.4	115.3	111.9	5.7	6.1	7.3	5.1	5.3	6.6
Lansing-East Lansing .....	233.8	237.6	234.8	14.3	15.3	21.3	6.1	6.5	9.1
Muskegon .....	67.0	66.9	65.8	7.3	6.2	7.6	11.0	9.3	11.6
Saginaw-Bay City-Midland .....	180.4	184.5	182.8	17.1	15.5	21.4	9.5	8.4	11.7
<b>Minnesota</b> .....	2,214.1	2,299.7	2,223.9	145.0	134.8	135.6	6.6	5.9	6.1
Duluth .....	107.3	107.2	105.2	11.7	9.5	10.1	10.9	8.9	9.6
Minneapolis-St. Paul .....	1,320.0	1,377.3	1,335.1	63.7	63.0	62.5	4.8	4.6	4.7
Rochester .....	58.2	58.9	57.2	2.7	2.5	2.3	4.7	4.2	4.1
St. Cloud .....	89.5	95.7	94.8	6.8	7.3	6.6	7.7	7.6	7.0
<b>Mississippi</b> .....	1,148.2	1,148.7	1,170.7	143.3	100.1	124.3	12.5	8.7	10.6
Jackson .....	195.5	200.3	( <sup>2</sup> )	17.0	11.6	( <sup>2</sup> )	8.7	5.8	( <sup>2</sup> )
<b>Missouri</b> .....	2,559.4	2,611.9	2,531.6	191.3	165.2	168.7	7.5	6.3	6.7
Kansas City .....	825.7	846.9	826.8	49.5	46.6	45.9	6.0	5.5	5.5
St. Louis .....	1,262.9	1,282.1	1,256.5	99.9	83.4	90.9	7.9	6.5	7.2
Springfield .....	120.4	124.5	120.6	6.9	5.9	5.8	5.7	4.7	4.8
<b>Montana</b> .....	395.2	397.1	398.2	39.4	26.4	37.7	10.0	6.7	9.5
<b>Nebraska</b> .....	795.8	816.1	782.4	46.9	40.0	40.7	5.9	4.9	5.2
Lincoln .....	( <sup>2</sup> )	( <sup>2</sup> )	118.2	( <sup>2</sup> )	( <sup>2</sup> )	4.1	( <sup>2</sup> )	( <sup>2</sup> )	3.5
Omaha .....	( <sup>2</sup> )	( <sup>2</sup> )	314.8	( <sup>2</sup> )	( <sup>2</sup> )	16.0	( <sup>2</sup> )	( <sup>2</sup> )	5.1
<b>Nevada</b> .....	535.3	569.9	585.1	38.8	36.1	40.6	7.2	6.3	7.2
Las Vegas .....	312.7	332.7	329.5	21.7	21.4	22.5	6.9	6.4	6.8
Reno .....	133.2	140.6	139.5	9.5	8.5	10.1	7.2	6.0	7.2
<b>New Hampshire</b> .....	558.7	599.3	595.0	17.5	12.8	19.5	3.1	2.1	3.3
Nashua .....	93.7	100.8	98.9	2.8	2.3	3.0	3.0	2.2	3.1
Portsmouth-Dover-Rochester .....	123.2	132.8	131.0	3.9	2.1	4.0	3.2	1.6	3.1
<b>New Jersey</b> <sup>1</sup> .....	3,828.3	3,954.5	3,964.5	174.5	141.7	178.4	4.6	3.6	4.5
Atlantic City .....	158.7	184.7	166.2	12.2	10.5	12.8	7.7	6.4	7.7
Bergen-Passaic .....	700.9	723.8	726.4	28.5	21.8	26.5	4.1	3.0	3.6
Jersey City .....	259.2	269.4	267.7	19.1	17.6	19.3	7.4	6.5	7.2
Middlesex-Somerset-Hunterdon .....	534.8	555.5	557.8	16.8	13.1	17.8	3.1	2.4	3.2
Monmouth-Ocean .....	445.0	464.2	468.6	17.6	14.0	20.4	4.0	3.0	4.4
Newark .....	938.4	958.6	959.2	42.6	34.3	43.2	4.5	3.6	4.5
Trenton .....	167.4	172.4	173.3	6.5	4.7	6.2	3.9	2.7	3.6
<b>New Mexico</b> .....	679.6	681.5	676.0	69.1	54.6	59.7	10.2	8.0	8.8
Albuquerque .....	258.8	260.4	256.7	17.9	15.8	16.3	6.9	6.1	6.3
Las Cruces .....	53.5	55.4	54.3	4.0	3.6	4.0	7.4	6.5	7.4
Santa Fe .....	62.8	65.0	64.9	4.0	3.5	3.9	6.4	5.4	6.1

See footnotes at end of table



**STATE AND AREA LABOR FORCE DATA  
NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas—Continued**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>p</sup>
<b>New York<sup>1</sup></b>	8,485.8	8,525.6	8,523.1	523.0	354.6	427.0	6.2	4.2	5.0
Albany-Schenectady-Troy	413.8	424.3	424.1	20.8	14.1	18.7	5.0	3.3	4.4
Binghamton	127.0	127.8	127.6	7.2	4.4	5.2	5.6	3.5	4.1
Buffalo	444.9	450.8	448.9	31.0	21.3	28.0	7.0	4.7	6.2
Elmira	39.9	41.9	42.3	2.5	1.4	1.9	6.2	3.4	4.6
Nassau-Suffolk	1,416.5	1,448.3	1,435.8	51.8	38.2	49.1	3.7	2.6	3.4
New York	3,935.1	3,894.8	3,897.8	264.1	178.9	193.6	6.7	4.6	5.0
New York City	3,262.0	3,206.0	3,215.0	242.0	161.0	170.0	7.4	5.0	5.3
Orange County	129.5	132.4	133.7	6.3	4.3	6.1	4.9	3.2	4.5
Poughkeepsie	125.8	129.3	127.3	4.3	3.3	3.9	3.4	2.6	3.0
Rochester	498.2	499.3	501.3	27.5	17.8	22.5	5.5	3.6	4.5
Syracuse	319.4	324.3	327.0	23.6	16.5	22.8	7.4	5.1	7.0
Utica-Rome	134.8	136.3	137.5	10.4	6.6	8.7	7.7	4.8	6.3
<b>North Carolina<sup>1</sup></b>	3,206.5	3,280.0	3,247.3	167.9	136.2	165.7	5.2	4.2	5.1
Asheville	84.7	86.6	85.7	4.8	3.2	4.4	5.6	3.7	5.1
Charlotte-Gastonia-Rock Hill	609.7	638.6	629.3	24.7	21.3	23.9	4.0	3.3	3.8
Greensboro-Winston-Salem-High Point	507.6	515.8	512.7	20.0	16.6	20.8	3.9	3.2	4.1
Raleigh-Durham	388.4	398.9	393.3	12.9	11.5	14.0	3.3	2.9	3.6
<b>North Dakota</b>	325.6	327.5	322.7	24.8	16.3	22.6	7.6	5.0	7.0
Bismarck	44.7	45.1	45.0	3.4	2.3	3.3	7.7	5.1	7.4
Fargo-Moorhead	83.3	87.0	84.9	4.1	3.5	3.8	4.9	4.0	4.4
Grand Forks	35.3	37.3	36.0	1.6	1.4	1.8	4.7	3.8	5.1
<b>Ohio<sup>1</sup></b>	5,199.7	5,259.1	5,257.9	452.0	322.0	374.6	8.7	6.1	7.1
Akron	319.5	322.6	321.5	28.1	20.0	24.7	8.8	6.2	7.7
Cincinnati	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Cleveland	915.8	931.0	929.0	68.7	50.3	58.5	7.5	5.4	6.3
Columbus	686.3	704.2	702.0	43.2	34.5	39.7	6.3	4.9	5.7
Dayton-Springfield	458.4	464.0	463.0	30.8	23.6	27.6	6.7	5.1	6.0
Toledo	305.5	313.2	309.1	26.8	19.8	20.3	8.8	6.3	6.6
Youngstown-Warren	221.7	219.1	218.7	25.9	17.4	19.7	11.7	7.9	9.0
<b>Oklahoma</b>	1,563.1	1,546.5	1,496.2	134.5	92.9	108.6	8.6	6.0	7.3
Enid	30.8	30.2	29.3	2.7	1.6	1.9	8.7	5.4	6.3
Lawton	49.4	50.2	48.6	2.5	2.2	2.6	5.1	4.5	5.3
Oklahoma City	507.1	504.0	485.6	33.6	24.9	29.6	6.6	4.9	6.1
Tulsa	349.5	342.5	331.8	32.1	23.6	26.5	9.2	6.9	8.0
<b>Oregon</b>	1,354.1	1,403.7	1,402.1	118.1	83.0	99.9	8.7	5.9	7.1
Eugene-Springfield	135.8	139.2	139.4	10.4	7.9	9.1	7.6	5.7	6.5
Portland	623.4	648.7	645.6	43.4	30.7	36.7	7.0	4.7	5.7
Salem	122.8	126.5	128.9	11.2	8.1	9.8	9.1	6.4	7.6
<b>Pennsylvania<sup>1</sup></b>	5,454.0	5,752.4	5,728.1	359.4	293.4	356.0	6.5	5.1	6.2
Allentown-Bethlehem	310.6	322.7	321.0	18.1	16.1	18.3	5.8	5.0	5.7
Altoona	56.4	60.4	59.5	4.9	4.6	5.1	8.7	7.6	8.6
Beaver County	63.1	62.1	62.3	6.9	5.4	6.5	10.9	8.8	10.4
Erie	124.0	129.4	129.1	10.4	8.2	9.6	8.4	6.4	7.5
Harrisburg-Lebanon-Carlisle	301.3	316.1	317.5	14.7	11.2	15.2	4.9	3.5	4.8
Johnstown	91.7	94.8	95.2	9.2	7.8	9.3	10.1	8.2	9.8
Lancaster	200.6	215.1	213.5	7.9	7.6	9.3	4.0	3.5	4.4
Philadelphia	2,324.2	2,439.1	2,414.3	108.8	91.8	110.7	4.7	3.8	4.6
Pittsburgh	931.1	958.9	959.0	72.8	57.5	70.9	7.8	6.0	7.4
Reading	166.1	174.8	174.4	9.4	7.2	8.9	5.6	4.1	5.1
Scranton-Wilkes-Barre	339.5	353.3	353.9	28.0	22.5	26.5	8.3	6.4	7.5
Williamsport	54.3	60.3	61.3	3.9	3.3	4.4	7.2	5.4	7.2
York	203.0	213.2	215.5	10.9	8.2	11.6	5.4	3.8	5.4
<b>Rhode Island</b>	508.7	525.3	520.4	22.2	18.4	20.7	4.4	3.5	4.0
Pawtucket-Woonsocket-Attleboro	165.2	168.3	167.7	8.8	6.8	8.0	5.3	4.0	4.8
Providence	331.8	343.2	339.9	13.8	11.6	13.0	4.2	3.4	3.8
<b>South Carolina</b>	1,589.3	1,651.5	1,621.9	100.3	84.0	98.1	6.3	5.1	6.1
Charleston	215.7	224.5	221.6	11.1	9.7	10.6	5.2	4.3	4.8
Columbia	224.7	231.4	226.3	8.9	8.3	9.4	4.0	3.6	4.1
Greenville-Spartanburg	307.7	316.4	316.6	14.9	12.0	14.5	4.9	3.8	4.6
<b>South Dakota</b>	341.9	351.1	343.6	19.1	16.8	16.0	5.6	4.8	4.7
Sioux Falls	69.2	74.0	71.3	3.2	3.9	3.7	4.7	5.2	5.2

See footnotes at end of table

**STATE AND AREA LABOR FORCE DATA  
NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas—Continued**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number		Percent of labor force			
	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>	Jan 1987	Dec 1987	Jan 1988 <sup>a</sup>
<b>Tennessee</b>	2,286.6	2,370.1	2,367.5	185.6	148.1	164.2	8.1	6.2	6.9
Chattanooga	203.2	209.5	207.0	13.5	10.4	12.6	6.6	5.0	6.1
Johnson City-Kingsport-Bristol	208.8	222.6	(?)	15.5	13.8	(?)	7.4	6.2	(?)
Knoxville	276.2	283.3	282.4	23.7	17.6	19.6	8.6	6.2	6.9
Memphis LMA	423.8	455.2	452.3	28.9	25.0	26.0	6.8	5.5	5.7
Nashville	516.9	522.9	520.4	25.3	23.9	25.3	4.9	4.6	4.9
<b>Texas<sup>1</sup></b>	8,127.3	8,269.2	8,161.7	798.8	561.4	682.5	9.8	6.8	8.4
Abilene	54.5	54.2	53.7	5.6	3.4	4.0	10.3	6.3	7.5
Amarillo	97.9	101.3	99.8	7.0	5.1	6.7	7.2	5.0	6.7
Austin	425.5	431.0	423.8	29.3	23.7	29.6	6.9	5.5	7.0
Beaumont-Port Arthur	162.0	160.0	157.9	23.1	15.6	19.0	14.3	9.8	12.1
Brazoria	78.8	81.5	80.3	9.2	6.2	7.7	11.6	7.7	9.6
Brownsville-Harlingen	93.8	96.1	97.4	15.7	12.2	16.5	16.7	12.7	17.0
Bryan-College Station	55.0	58.0	54.4	3.8	2.4	2.9	7.0	4.1	5.4
Corpus Christi	161.6	159.0	159.0	22.1	14.6	17.7	13.0	9.2	11.1
Dallas	1,417.9	1,460.3	1,438.9	94.5	74.8	92.3	6.7	5.1	6.4
El Paso	227.3	234.4	233.1	26.3	22.0	26.4	11.6	9.4	11.3
Fort Worth-Arlington	661.6	679.0	668.8	51.1	37.8	46.9	7.7	5.6	7.0
Galveston-Texas City	108.0	107.4	106.3	12.4	9.4	11.7	11.4	8.8	11.0
Houston	1,587.0	1,607.3	1,579.5	173.9	107.9	127.1	11.0	6.7	8.0
Killeen-Temple	90.2	93.7	93.0	7.6	6.2	7.6	8.4	6.6	8.2
Laredo	45.6	46.2	45.2	8.6	6.3	6.4	19.0	13.7	14.0
Longview-Marshall	79.4	79.0	78.5	10.1	6.7	8.1	12.7	8.4	10.3
Lubbock	109.7	114.3	110.9	7.5	5.8	6.7	6.9	5.1	6.0
McAllen-Edinburg-Mission	150.0	152.1	154.6	32.1	25.0	30.3	21.4	16.5	19.6
Midland	50.4	50.4	49.0	5.8	3.1	3.7	11.5	6.1	7.6
San Angelo	44.6	46.0	44.3	3.3	2.4	2.8	7.5	5.3	6.3
San Antonio	595.4	614.0	609.5	51.4	41.4	50.8	8.6	6.7	8.3
Sherman-Denison	48.3	50.1	49.2	4.3	3.3	3.8	8.8	6.6	7.6
Texarkana	57.4	59.0	58.1	5.4	4.3	4.9	9.4	7.3	8.5
Waco	90.6	94.2	92.7	7.9	6.8	8.3	8.7	7.2	9.0
Wichita Falls	56.7	57.3	56.9	5.3	3.6	4.3	9.4	6.3	7.6
<b>Utah</b>	747.0	759.0	758.6	54.7	44.5	51.0	7.3	5.9	6.7
Provo-Orem	97.9	99.3	98.9	8.7	5.4	6.3	8.9	5.4	6.4
Salt Lake City-Ogden	496.2	505.4	504.9	31.2	28.4	31.8	6.3	5.6	6.3
<b>Vermont</b>	285.5	302.3	302.1	14.1	11.1	12.4	4.9	3.7	4.1
Burlington	71.5	75.5	75.1	2.6	1.8	2.0	3.6	2.4	2.7
<b>Virginia</b>	2,912.6	3,035.1	2,997.1	139.7	119.9	127.0	4.8	4.0	4.2
Charlottesville	63.1	68.3	(?)	2.2	1.7	(?)	3.5	2.5	(?)
Danville	50.0	51.3	(?)	3.8	3.5	(?)	7.6	6.8	(?)
Lynchburg	71.0	72.7	(?)	3.6	3.7	(?)	5.1	5.1	(?)
Norfolk-Virginia Beach-Newport News	580.0	601.9	(?)	29.3	27.3	(?)	5.0	4.5	(?)
Richmond-Petersburg	421.4	440.5	(?)	16.9	16.1	(?)	4.0	3.7	(?)
Roanoke	117.4	120.2	(?)	5.4	5.1	(?)	4.6	4.2	(?)
<b>Washington</b>	2,186.7	2,286.0	2,263.8	194.2	181.1	184.5	8.9	7.9	8.2
Seattle	977.4	1,029.9	1,023.5	63.8	62.3	61.3	6.5	6.0	6.0
<b>West Virginia</b>	749.3	751.9	757.7	103.3	74.9	104.8	13.8	10.0	13.8
Charleston	115.9	116.8	(?)	12.3	9.5	(?)	10.6	8.1	(?)
Huntington-Ashland	128.2	128.5	(?)	16.3	12.2	(?)	12.7	9.5	(?)
Parkersburg-Marietta	71.6	71.8	(?)	8.6	5.2	(?)	12.1	7.3	(?)
Wheeling	71.9	72.0	(?)	8.4	6.0	(?)	11.7	8.4	(?)
<b>Wisconsin</b>	2,418.2	2,530.5	2,447.3	195.0	151.1	170.8	8.1	6.0	7.0
Appleton-Oshkosh-Neenah	159.1	167.0	161.5	12.7	9.2	10.5	8.0	5.5	6.5
Eau Claire	68.5	71.9	68.8	5.7	4.6	5.1	8.3	6.4	7.5
Green Bay	102.4	107.6	104.0	8.0	6.3	7.3	7.8	5.9	7.0
Janesville-Beloit	69.9	72.6	70.4	6.2	4.8	5.2	8.9	6.6	7.4
Kenosha	52.6	57.0	55.3	5.1	3.4	3.8	9.8	6.1	6.9
La Crosse	51.8	56.0	53.4	3.4	2.7	3.2	6.6	4.9	5.9
Madison	207.6	218.9	211.2	10.1	7.9	9.7	4.9	3.6	4.6
Milwaukee	725.3	752.4	730.0	46.5	38.5	41.0	6.4	5.1	5.6
Racine	86.0	87.9	85.4	7.3	5.4	5.9	8.5	6.2	6.9
Wausau	57.2	59.8	58.4	5.7	3.8	4.9	9.9	6.3	8.4
<b>Wyoming</b>	238.4	228.2	227.1	29.3	17.4	20.2	12.3	7.6	8.9

<sup>1</sup> Data are obtained directly from the Current Population Survey. See the Explanatory Notes for State and Area Labor Force Data.

<sup>2</sup> Not available.  
<sup>a</sup> = preliminary

NOTE: Data refer to place of residence. Estimates for 1987 have been

benchmarked to 1987 Current Population Survey annual averages. Except in the 11 States and 2 areas designated by footnote 1, estimates for 1988 are provisional and will be revised when new benchmark information becomes available. Area definitions are published annually in the May issue of this publication.

# Explanatory Notes

## Introduction

The statistics in this periodical are compiled from two major sources: (1) Household interviews, and (2) reports from employers.

*Data based on household interviews* are obtained from a sample survey of the population 16 years of age and over. The survey is conducted each month by the Bureau of the Census for the Bureau of Labor Statistics and provides comprehensive data on the labor force, the employed, and the unemployed, including such characteristics as age, sex, race, family relationship, marital status, occupation, and industry attachment. The survey also provides data on the characteristics and past work experience of those not in the labor force. The information is collected by trained interviewers from a sample of about 59,500 households, representing 729 areas in 1,973 counties and independent cities, with coverage in 50 States and the District of Columbia. The data collected are based on activity or status reported for the calendar week including the 12th of the month.

*Data based on establishment records* are compiled each month from mail questionnaires by the Bureau of Labor Statistics, in cooperation with State agencies. The establishment survey is designed to provide industry information on nonagricultural wage and salary employment, average weekly hours, average hourly earnings, and average weekly earnings for the Nation, States, and metropolitan areas. The employment, hours, and earnings series are currently based on payroll reports from a sample of 290,000 establishments employing over 38 million nonagricultural wage and salary workers. The data relate to all workers, full or part time, who received pay during the payroll period which includes the 12th day of the month.

## RELATION BETWEEN THE HOUSEHOLD AND ESTABLISHMENT SERIES

The household and establishment data supplement one another, each providing significant types of information that the other cannot suitably supply. Population characteristics, for example, are readily obtained only from the household survey whereas detailed industrial classifications can be reliably derived only from establishment reports.

Data from these two sources differ from each other because of differences in definitions and coverage, sources of information, methods of collection, and estimating procedures. Sampling variability and response errors are additional reasons for discrepancies. The major factors which

have a differential effect on the levels and trends of the two series are as follows.

### Employment

*Coverage.* The household survey definition of employment comprises wage and salary workers (including domestics and other private household workers), self-employed persons, unpaid workers who worked 15 hours or more during the survey week in family-operated enterprises, and members of the Armed Forces stationed in the United States. Civilian employment in both agricultural and nonagricultural industries is included. The payroll survey covers only wage and salary employees on the payrolls of nonagricultural establishments.

*Multiple jobholding.* The household survey provides information on the work status of the population without duplication, since each person is classified as employed, unemployed, or not in the labor force. Employed persons holding more than one job are counted only once and are classified according to the job at which they worked the greatest number of hours during the survey week. In the figures based on establishment reports, persons who worked in more than one establishment during the reporting period are counted each time their names appear on payrolls.

*Unpaid absences from jobs.* The household survey includes among the employed all civilians who had jobs but were not at work during the survey week—that is, were not working but had jobs from which they were temporarily absent because of illness, bad weather, vacation, labor-management disputes, or because they were taking time off for various other reasons, even if they were not paid by their employers for the time off. In the figures based on payroll reports, persons on leave paid for by the company are included, but not those on leave without pay for the entire payroll period.

For a comprehensive discussion of the differences between household and establishment survey employment data, see Gloria P. Green's article, "Comparing Employment Estimates From Household and Payroll Surveys," *Monthly Labor Review*, December 1969.

### Hours of work

The household survey measures hours actually worked whereas the payroll survey measures hours paid for by

employers. In the household survey data, all persons with a job but not at work are excluded from the hours distributions and the computations of average hours. In the payroll survey, production or nonsupervisory employees on paid vacation, paid holiday, or paid sick leave are included and assigned the number of hours for which they were paid during the reporting period.

## Earnings

The household survey measures median earnings of wage and salary workers in all occupations and industries in both the private and public sectors. Data refer to the usual earnings received from the worker's sole or primary job. Data from the establishment survey generally refer to average earnings of production and related workers in mining and manufacturing, construction workers in construction, and nonsupervisory employees in private service-producing industries. For a comprehensive discussion of the household survey earnings series, see *Technical Description of the Quarterly Data on Weekly Earnings from the Current Population Survey*, BLS Bulletin 2113.

## COMPARABILITY OF HOUSEHOLD DATA WITH OTHER SERIES

*Unemployment insurance data.* The unemployed total from the household survey includes all persons who did not have a job at all during the survey week and were looking for work or were waiting to be called back to a job from which they had been laid off, whether or not they were eligible for unemployment insurance. Figures on unemployment insurance claims, prepared by the Employment and Training Administration of the Department of Labor, exclude persons who have exhausted their benefit rights, new workers who have not earned rights to unemployment insurance, and persons losing jobs not covered by unemployment insurance systems (some workers in agriculture, domestic services, and religious organizations, and self-employed and unpaid family workers). Beginning in January 1978, coverage was extended to include domestic workers whose employers paid \$1,000 or more in wages in any calendar quarter, agricultural employees whose employers engaged 10 or more workers in 20 weeks or paid a total of \$20,000 or more in wages in any calendar quarter, and almost all State and local government employees.

In addition, the qualifications for drawing unemployment compensation differ from the definition of unemployment used in the household survey. For example, persons with a job but not at work and persons working only a few hours during the week are sometimes eligible for unemployment compensation but are classified as employed rather than

unemployed in the household survey.

For an examination of the similarities and differences between State insured unemployment and total unemployment, see "Measuring Total and State Insured Unemployment" by Gloria P. Green in the June 1971 issue of the *Monthly Labor Review*.

*Agricultural employment estimates of the Department of Agriculture.* The principal differences in coverage are the inclusion of persons under 16 in the Economics and Statistics Service series and the treatment of dual jobholders, who are counted more than once if they work on more than one farm during the reporting period. There are also wide differences in sampling techniques and collecting and estimating methods which cannot be readily measured in terms of their impact on differences in the levels and trends of the two series.

## COMPARABILITY OF PAYROLL EMPLOYMENT DATA WITH OTHER SERIES

*Statistics on manufactures and business, Bureau of the Census.* BLS establishment statistics on employment differ from employment counts derived by the Bureau of Census from its censuses or sample surveys of manufacturing and business establishments. The major reasons for noncomparability are different treatment of business units considered parts of an establishment, such as central administrative offices and auxiliary units, the industrial classification of establishments, and different reporting patterns by multiunit companies. There are also differences in the scope of the industries covered, e.g., the Census of Business excludes professional services, public utilities, and financial establishments, whereas these are included in the BLS statistics.

*County Business Patterns.* Data in *County Business Patterns* (CBP) published by the Bureau of the Census, U.S. Department of Commerce, differ from BLS establishment statistics in the treatment of central administrative offices and auxiliary units. Differences may also arise because of industrial classification and reporting practices. In addition, CBP excludes interstate railroads and government, and coverage is incomplete for some of the nonprofit activities.

*Employment covered by State unemployment insurance programs.* Most nonagricultural wage and salary workers are covered by the unemployment insurance programs. However, certain activities, such as interstate railroads, parochial schools, and churches, are not covered by unemployment insurance whereas these are included in the BLS establishment statistics.



## Household Data (A tables)

### COLLECTION AND COVERAGE

Statistics on the employment status of the population, the personal, occupational, and other characteristics of the employed, the unemployed, and persons not in the labor force, and related data are compiled for the BLS by the Bureau of the Census in its Current Population Survey (CPS). A detailed description of this survey appears in *Concepts and Methods Used in Labor Force Statistics Derived from the Current Population Survey*, BLS Report 463. Historical national data are published in *Labor Force Statistics Derived From the Current Population Survey: A Databook*, BLS Bulletin 2096.

These monthly surveys of the population are conducted through a scientifically selected sample designed to represent the civilian noninstitutional population. Respondents are interviewed to obtain information about the employment status of each member of the household 16 years of age and over. The inquiry relates to activity or status during the calendar week, Sunday through Saturday, which includes the 12th of the month. This is known as the survey week. Actual field interviewing is conducted in the following week.

Inmates of institutions and persons under 14 years of age are not covered in the regular monthly enumerations, and are excluded from the population and labor force statistics shown in this publication. Data on the members of the Armed Forces stationed in the United States, who are included as part of the categories "noninstitutional population," "labor force," and "total employment," are obtained from the Department of Defense.

Each month about 59,500 occupied units are eligible for interview. About 2,500 of these households are visited but interviews are not obtained because the occupants are not at home after repeated calls or are unavailable for other reasons. This represents a noninterview rate for the survey of between 4 and 5 percent. In addition to the 59,500 occupied units, there are 11,000 sample units in an average month which are visited but found to be vacant or otherwise not enumerated. Part of the sample is changed each month. The rotation plan provides for three-fourths of the sample to be common from one month to the next, and one-half to be common with the same month a year earlier.

### CONCEPTS AND DEFINITIONS

The concepts and definitions underlying labor force data have been modified, but not substantially altered, since the inception of the survey in 1940; those used since 1967 are as follows:

*Employed persons* are (a) all civilians who, during the survey week, did any work at all as paid employees, in their own business, profession, or on their own farm, or who worked 15 hours or more as unpaid workers in an enterprise operated by a member of the family; and (b) all those who

were not working but who had jobs or businesses from which they were temporarily absent because of illness, bad weather, vacation, labor-management disputes, or personal reasons, whether they were paid for the time off or were seeking other jobs. Members of the Armed Forces stationed in the United States are also included in the employed total.

Each employed person is counted only once. Those who held more than one job are counted in the job at which they worked the greatest number of hours during the survey week.

Included in the total are employed citizens of foreign countries who are temporarily in the United States but not living on the premises of an embassy. Excluded are persons whose only activity consisted of work around the house (painting, repair, or own home housework) or volunteer work for religious, charitable, and similar organizations.

*Unemployed persons* are all civilians who had no employment during the survey week, were available for work, except for temporary illness, and had made specific efforts to find employment some time during the prior 4 weeks. Persons who were waiting to be recalled to a job from which they had been laid off or were waiting to report to a new job within 30 days need not be looking for work to be classified as unemployed.

*Duration of unemployment* represents the length of time (through the current survey week) during which persons classified as unemployed had been continuously looking for work. For persons on layoff, duration of unemployment represents the number of full weeks since the termination of their most recent employment. A period of 2 weeks or more during which a person was employed or ceased looking for work is considered to break the continuity of the present period of seeking work. Measurements of mean and median duration are computed from a distribution of single weeks of unemployment.

Unemployment is also categorized according to the status of individuals at the time they began to look for work. The reasons for unemployment are divided into four major groups. (1) *Job losers* are persons whose employment ended involuntarily who immediately began looking for work, and persons on layoff. (2) *Job leavers* are persons who quit or otherwise terminated their employment voluntarily and immediately began looking for work. (3) *Reentrants* are persons who previously worked at a full-time job lasting 2 weeks or longer but were out of the labor force prior to beginning to look for work. (4) *New entrants* are persons who never worked at a full-time job lasting 2 weeks or longer. Each of these four categories of the unemployed may be expressed as an unemployment rate or proportion of the entire civilian labor force; the sum of the four rates thus equals the unemployment rate for all civilian workers.

*Jobseekers* are all unemployed persons who made

specific efforts to find a job sometime during the 4-week period preceding the survey week. Jobseekers do not include those persons unemployed because they (a) were waiting to be called back to a job from which they had been laid off or (b) were waiting to report to a new job within 30 days. Jobseekers are grouped by the methods used to seek work, including going to a public or private employment agency or to an employer directly, seeking assistance from friends or relatives, placing or answering ads, or utilizing some other method. Examples of the "other" category include being on a union or professional register, obtaining assistance from a community organization, or waiting at a designated labor pickup point.

The *civilian labor force* comprises all civilians classified as employed or unemployed in accordance with the criteria described above. The *labor force* also includes members of the Armed Forces stationed in the United States.

The *overall unemployment rate* represents the number unemployed as a percent of the labor force, including members of the Armed Forces stationed in the United States.

The *unemployment rate for all civilian workers* represents the number unemployed as a percent of the civilian labor force. This measure can also be computed for groups within the labor force classified by sex, age, race, Hispanic origin, marital status, etc.

*Participation rates* represent the proportion of the population that is in the labor force. The *labor force participation rate* is the ratio of the labor force, including the resident Armed Forces, to the noninstitutional population. The *civilian labor force participation rate* is the ratio of the civilian labor force to the civilian noninstitutional population. Civilian labor force participation rates are usually published for sex-age groups, often cross-classified by other demographic characteristics such as race and educational attainment.

*Employment-population ratios* represent the proportion of the noninstitutional population that is employed. The *total employment-population ratio* is total employment, including the resident Armed Forces, as a percent of the noninstitutional population. The *civilian employment-population ratio* is the percentage of all employed civilians in the civilian noninstitutional population.

*Not in the labor force* includes all persons who are not classified as employed or unemployed. These persons are further classified as engaged in own home housework, in school, unable to work because of long-term physical or mental illness, retired, and other. The "other" group includes individuals reported as too old or temporarily unable to work, the voluntarily idle, seasonal workers for whom the survey week fell in an off season and who were not reported as looking for work, and persons who did not look for work because they believed that no jobs were available in the area or that no jobs were available for which they could qualify—discouraged workers. Persons doing only incidental, unpaid family work (less than 15 hours in the specified week) are also classified as not in labor force.

For persons not in the labor force, data on previous work experience, intentions to seek work, desire for a job at the

time of interview, and reasons for not looking for work are published on a quarterly basis. As of January 1970, the detailed questions for persons not in the labor force are asked only in those households that are in the fourth and eighth months of the sample, i.e., the "outgoing" groups, those which had been in the sample for 3 previous months and would not be in for the subsequent month. Between 1967 and 1969, these questions were asked in those households entering the sample for the first time and those returning for the second 4 months of interviewing, i.e., the "incoming" groups.

*Occupation, industry, and class of worker* for the employed apply to the job held in the survey week. Persons with two or more jobs are classified in the job at which they worked the greatest number of hours during the survey week. The unemployed are classified according to their last full-time job lasting 2 weeks or more. The classifications of occupations and industries used in data derived from the CPS are defined as in the 1980 census. Information on the detailed categories included in these groups is available upon request.

The class-of-worker breakdown specifies wage and salary workers subdivided into private and government workers; self-employed workers; and unpaid family workers. Wage and salary workers receive wages, salary, commission, tips, or pay in kind from a private employer or from a government unit. Self-employed persons are those who work for profit or fees in their own business, profession, or trade, or operate a farm. Unpaid family workers are persons working without pay for 15 hours a week or more on a farm or in a business operated by a member of the household to whom they are related by birth or marriage.

*Hours of work* statistics relate to the actual number of hours worked during the survey week. For example, persons who normally work 40 hours a week but were off on the Columbus Day holiday would be reported as working 32 hours even though they were paid for the holiday. For persons working in more than one job, the figures relate to the number of hours worked in all jobs during the week; all the hours are credited to the major job.

Persons who worked 35 hours or more during the survey week are designated as working *full time*. Persons who worked between 1 and 34 hours are designated as working *part time*. Part-time workers are classified by their usual status at their present job (either full or part time) and by their reason for working part time during the survey week (economic or noneconomic reasons). Economic reasons include: Slack work, material shortages, repairs to plant or equipment, start or termination of a job during the week, and inability to find full-time work. Noneconomic reasons include: Labor dispute, bad weather, own illness, vacation, demands of home or school, no desire for full-time work, and full-time worker only during peak season. Persons on full-time schedules include, in addition to those working 35 hours or more, those who worked from 1 to 34 hours for noneconomic reasons and usually work full time.

Data on employment "at work" differ from data on total employment because they exclude persons in the zero-hours-



worked category, "with a job but not at work." These are persons who were absent from their jobs for the entire week for such reasons as bad weather, vacation, illness, or involvement in a labor dispute.

Employed persons are also categorized into full- and part-time groupings based primarily on their *usual status*. In this context, *full-time workers* are those who (a) worked 35 hours or more during the survey week, (b) worked 1 to 34 hours for economic or noneconomic reasons, but usually work full time, and (c) were with a job but not at work and usually work full time. Similarly, *part-time workers* are those who (a) voluntarily worked 1 to 34 hours during the survey week, (b) worked 1 to 34 hours for economic reasons, but usually work part time, i.e., persons who could only find part-time work; and (c) were with a job but not at work and usually work part time.

Unemployment rates for full- and part-time workers are calculated using the concepts of the *full- and part-time labor force* which are based on the type of job—full or part-time—that persons—whether working or unemployed—report that they want. The "full-time labor force" includes all persons working part time but who desire full-time work, that is, working part time for economic reasons. Thus, this category consists of persons on full-time schedules; all persons involuntarily working part time regardless of their usual status; and unemployed persons seeking full-time jobs. The "part-time labor force" consists of persons working part time voluntarily and unemployed persons seeking part-time work. Employed persons with a job but not at work are distributed according to whether they usually work on full-time or voluntary part-time schedules.

*Labor force time lost* is a measure of aggregate hours lost to the economy through unemployment and involuntary part-time employment and is expressed as a percent of potentially available aggregate hours. It is computed by assuming that; (1) unemployed persons looking for full-time work lost an average of 37.5 hours, (2) those looking for part-time work lost the average number of hours actually worked by voluntary part-time workers during the survey week, and (3) persons on part time for economic reasons lost the difference between 37.5 hours and the actual number of hours they worked.

*White, black, and other* are terms used to describe the race of workers. Included in the "other" group are American Indians, Alaskan Natives, and Asians and Pacific Islanders. All tables in this publication which contain racial data, with the exception of A-5 and its annual counterpart, present data for the black population group. Because of their relatively small sample size, data for "other" races are not published. In the enumeration process, race is determined by the household respondent.

*Hispanic origin* refers to persons who identified themselves in the enumeration process as Mexican, Puerto Rican living on the mainland, Cuban, Central or South American, or of other Hispanic origin or descent. Persons of Hispanic ori-

gin may be of any race; thus they are included in both the white and black population groups.

*Vietnam-era veterans* are those who served in the Armed Forces of the United States between August 5, 1964, and May 7, 1975. Data are limited to men in the civilian noninstitutional population; i.e., veterans in institutions and women are excluded. Nonveterans are men who never served in the Armed Forces.

*Usual weekly earnings* data are provided from responses to the question "How much does...USUALLY earn per week at this job before deductions?" Included are any overtime pay, commissions, or tips usually received. The term "usual" is as perceived by the respondent. If the respondent asks for a definition of usual, interviewers are instructed to define the term as more than half the weeks worked during the past 4 or 5 months. Data refer to wage and salary workers (excluding the incorporated self-employed) who usually work full time on their sole or primary job.

*Median earnings* indicate the value which divides the earnings distribution into two equal parts, one part having values above the median and the other having values below the median. The medians as shown in this publication are calculated by linear interpolation of the \$50 centered interval within which each median falls.

Data expressed in constant dollars are deflated by the Consumer Price Index for All Urban Consumers (CPI-U).

*Single, never married; married, spouse present; and other marital status* are terms used to define the marital status of individuals at the time of interview. Married, spouse present, applies to husband and wife if both were reported as members of the same household even though one may be temporarily absent on business, vacation, on a visit, in a hospital, etc. Other marital status applies to persons who are married, spouse absent; widowed; or divorced. Married, spouse absent, includes persons who are separated because of marital discord, as well as persons who are living apart because either the husband or the wife was employed and living away from home, serving in the Armed Forces, or had a different place of residence for any reason.

A *household* consists of all persons—related family members and all unrelated persons—who occupy a housing unit. A house, an apartment, a group of rooms, or a single room is regarded as a housing unit when occupied or intended for occupancy as separate living quarters.

A *householder* is the person (or one of the persons) in whose name the housing unit is owned or rented. The term is never applied to either husbands or wives in married-couple families but relates only to persons in families maintained by either men or women without a spouse.

*Family* refers to a group of two or more persons residing together who are related by birth, marriage, or adoption; all such persons are considered as members of one family even though they may include a related subfamily, that is, a married couple or a parent-child group related by birth or marriage to the householder and sharing the living quarters. The

count of families used in this publication excludes unrelated subfamilies such as lodgers, guests, or resident employees living in a household but not related to the householder. Families are classified either as married-couple families or as families maintained by women or men without spouses. A family maintained by a woman or a man is one in which the householder is either single, widowed, divorced, or married, spouse absent. Data on the earnings of families exclude all those in which there is no wage or salary earner or in which the husband, wife, or other persons maintaining the family is either self-employed or in the Armed Forces.

*Poverty areas* are defined as those census tracts in tracted areas, and Minor Civil Division's (MCD's) in untraced areas, in which 20 percent or more of the noninstitutional residents were poor according to the 1980 decennial census. Persons were classified as poor or nonpoor by comparing money income to a series of poverty income thresholds which vary by family size and number of children. While poverty areas have a substantial concentration of low-income residents, many poor persons live outside these areas, and conversely, the areas include many people who are not poor.

The *metropolitan areas* classification consists of the total of all Metropolitan Statistical Areas (MSA's) as defined by the Office of Management and Budget (OMB) as of June 30, 1983. These definitions differ from those used in the 1980 decennial census. A detailed discussion of the MSA definitions as well as changes in terminology can be found in "The New Metropolitan Area Definitions" section of the *1980 Census of Population Supplementary Report on Metropolitan Statistical Areas*, PC-S1-18. Nonmetropolitan areas consist of the total territory outside MSA's.

The *urban population*, as defined for the 1980 census, comprises all persons living in urbanized areas and in places of 2,500 or more inhabitants outside urbanized areas. More specifically, the urban population consists of all persons living in (1) places of 2,500 or more inhabitants incorporated as cities, villages, boroughs (except in Alaska and New York), and towns (except in the New England States, New York, and Wisconsin), but excluding those persons living in the rural portions of extended cities; and (2) other territories, incorporated and unincorporated, included in urbanized areas. The population not classified as urban constitutes the rural population.

## HISTORICAL COMPARABILITY

### Change in lower age limit

The lower age limit for official statistics on the labor force, employment, and unemployment was raised from 14 to 16 years of age in January 1967. Insofar as possible, historical series have been revised to provide consistent information based on the population 16 years and over. For a detailed discussion of this and other definitional changes introduced at that time, including estimates of their effect on the various series, see "New Definitions for Employment and Unemployment," *Employment and Earnings and Monthly*

*Report on the Labor Force*, February 1967.

### Noncomparability of labor force levels

In addition to the changes introduced in 1967, there are several other periods of noncomparability in the labor force data: (1) Beginning in 1953, as a result of introducing data from the 1950 census into the estimating procedures, population levels were raised by about 600,000; labor force, total employment, and agricultural employment were increased by about 350,000, primarily affecting the figures for totals and men; other categories were relatively unaffected. (2) Beginning in 1960, the inclusion of Alaska and Hawaii resulted in an increase of about 500,000 in the population and about 300,000 in the labor force. Four-fifths of this increase was in nonagricultural employment; other labor force categories were not appreciably affected. (3) Beginning in 1962, the introduction of data from the 1960 census reduced the population by about 50,000 and labor force and employment by about 200,000; unemployment totals were virtually unchanged. (4) Beginning in 1972, information from the 1970 census was introduced into the estimation procedures, increasing the population by about 800,000; labor force and employment totals were raised by a little more than 300,000; and unemployment levels and rates were essentially unchanged. (5) A subsequent population adjustment based on the 1970 census was introduced in March 1973. This adjustment, which affected the white and black-and-other groups but had little effect on totals, resulted in the reduction of nearly 300,000 in the white population and an increase of the same magnitude in the black-and-other population. Civilian labor force and total employment figures were affected to a lesser degree; the white labor force was reduced by 150,000, and the black-and-other labor force rose by about 210,000. Unemployment levels and rates were not significantly affected.

In addition, beginning in January 1974, the methodology used to prepare independent estimates of the civilian noninstitutional population was modified to an inflation-deflation approach. This change in the derivation of the estimates had its greatest impact on estimates of 20- to 24-year-old men—particularly those of the black-and-other population—but had little effect on estimates of the total population 16 years and over. Additional information on the adjustment procedure appears in "CPS Population Controls Derived from Inflation-Deflation Method of Estimation", in the February 1974 issue of *Employment and Earnings*.

Effective in July 1975, as a result of the immigration of Vietnamese refugees into the United States, the total and black-and-other independent population controls for persons 16 years and over were adjusted upward by 76,000—30,000 men and 46,000 women. The addition of the refugees increased the black-and-other population by less than 1 percent in any age-sex group, and all of the changes were in the other population.

Beginning in January 1978, the introduction of an expansion in the sample and revisions in the estimation procedures resulted in an increase of about 250,000 in the civilian labor

force and employment totals; unemployment levels and rates were essentially unchanged. An explanation of the procedural changes and an indication of the differences appear in "Revisions in the Current Population Survey in January 1978" in the February 1978 issue of *Employment and Earnings*.

Beginning in October 1978, the race of the individual was determined by the household respondent for the incoming rotation group households, rather than by the interviewer as before. The purpose of this change was to provide more accurate estimates of characteristics by race. Thus, in October 1978, one-eighth of the sample households had race determined by the household respondent and seven-eighths of the sample households had race determined by interviewer observation. It was not until January 1980 that the entire sample had race determined by the household respondent. The new procedure had no significant effect on the estimates.

Beginning in January 1979, the first-stage ratio estimation method was changed in the CPS estimation procedure. Differences between the old and new procedures existed only for metropolitan and nonmetropolitan area estimates, not for the total United States. The reasoning behind the change and an indication of the differences appear in "Revisions in the Current Population Survey in January 1979" in the February 1979 issue of *Employment and Earnings*.

Beginning in January 1982, the second-stage ratio adjustment methodology was changed in the CPS estimation procedure. The purpose of the change and an indication of its effect on national estimates of labor force characteristics appear in "Revisions in the Current Population Survey Beginning in January 1982" in the February 1982 issue of *Employment and Earnings*. In addition, current population estimates used in the second-stage estimation procedure were derived from information obtained from the 1980 census, rather than the 1970 census. This change caused substantial increases in total population and estimates of persons in all labor force categories. Rates for labor force characteristics, however, remained virtually unchanged. Some 30,000 labor force series were adjusted back to 1970 to avoid major breaks in series. The adjustment procedure used is also described in the February 1982 article cited above. The revisions did not, however, smooth out the breaks in series occurring between 1972 and 1979 that are described above, and data users should make allowances for them in making certain data comparisons.

Beginning in January 1983, the first-stage ratio adjustment methodology was updated to account for results obtained from the 1980 census. The purpose of the change and an indication of its effect on national estimates of labor force characteristics appear in "Revisions in the Current Population Survey Beginning in January 1983" in the February 1983 issue of *Employment and Earnings*. There were only slight differences between the old and new procedures in estimates of levels for the various labor force characteristics and virtually no differences in estimates of participation rates.

Beginning in January 1985, most of the steps of the CPS estimation procedure—the noninterview adjustment, the first and second-stage ratio adjustments, and the composite

estimator—were revised. These procedures are described in the Estimating Methods section. A description of the changes and an indication of their effect on national estimates of labor force characteristics appear in "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1985" in the February 1985 issue of this publication. Overall, the revisions had only a slight effect on most estimates. The greatest impact was on estimates of persons of Hispanic origin. Major estimates were revised back to January 1980.

Beginning in January 1986, the population controls used in the second-stage ratio adjustment methodology were revised to reflect an explicit estimate of the number of undocumented immigrants (largely Hispanic) since 1980 and an improved estimate of the number of emigrants among legal foreign-born residents for the same time period. As a result, the total civilian population and labor force estimates were raised by nearly 400,000; civilian employment was increased by about 350,000. The Hispanic-origin civilian population and labor force estimates were raised by about 425,000 and 305,000, respectively, and civilian employment by 270,000. Overall and subgroup unemployment levels and rates were not significantly affected. Because of the magnitude of the adjustments for Hispanics, data have been revised back to January 1980 to the extent possible. An explanation of the changes and their effect on estimates of labor force characteristics appear in "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1986" in the February 1986 issue of this publication.

### **Changes in the occupational and industrial classification system**

Beginning in 1971, the comparability of occupational employment data was affected as a result of changes in the occupational classification system for the 1970 census that were introduced into the CPS. Comparability was further affected in December 1971, when a question relating to major activity or duties was added to the monthly CPS questionnaire in order to determine more precisely the occupational classification of individuals. As a result of these changes, meaningful comparisons of occupational employment levels could not be made between 1971-72 and prior years nor between those 2 years. Unemployment rates were not significantly affected. For a further explanation of the changes in the occupational classification system, see "Revisions in Occupational Classifications for 1971" and "Revisions in the Current Population Survey" in the February 1971 and February 1972 issues, respectively, of *Employment and Earnings*.

Beginning in January 1983, the occupational and industrial classification systems used in the 1980 census were introduced into the CPS. These systems differ from those developed for the 1970 census, which were used in the CPS from January 1971 through December 1982.

The 1980 census occupational classification system evolved



from the Standard Occupational Classification system (SOC). While the CPS occupational data are now comparable with other data sources, the new system is so radically different in concepts and nomenclature from the 1970 system that comparisons of historical data are not possible without major adjustments. For example, the 1980 major group "sales occupations" is substantially larger than the 1970 category "sales workers". Major additions include "cashiers" from "clerical workers" and some self-employed proprietors in retail trade establishments from "managers and administrators, except farm."

The industrial classification system used in the 1980 census is based on the 1972 Standard Industrial Classification system (SIC), as modified in 1977. The adoption of the new system had a much less adverse effect on historical comparability than did the new occupational system. The most notable changes from the 1970 system were the transfer of farm equipment stores from "retail" to "wholesale" trade, postal service from "public administration" to "transportation", and some interchange between "professional and related services" and "public administration."

Additional information on the 1980 census occupational and industrial classification systems appears in "Revisions in the Current Population Survey Beginning in January 1983" in the February 1983 issue of *Employment and Earnings*.

### Changes in the sample design

Since the inception of the survey, there have been various changes in the design of the CPS sample. Most of these changes were made in order to improve the efficiency of the sample design and/or to increase the reliability of the sample estimates.

One major change made after every decennial census is to change the sample design to make use of the recently collected census materials. Also, the number of sample areas and the number of sample persons are increased occasionally. In 1953, the current rotation plan was introduced, in which a sample unit is interviewed for 4 months, leaves the sample for 8 months, and then returns to the sample for another 4 months. When Alaska and Hawaii achieved statehood, three more sample areas were added to account for the population in these States. After the 1960 census, selection of a major portion of the sample from census address lists was begun, though a portion of the sample is still collected using area sampling. Following the 1970 census, the ultimate sampling unit was changed from a noncontiguous cluster of six housing units to a usually contiguous cluster of four housing units. In January 1978, a supplemental sample of 9,000 housing units, selected in 24 States and the District of Columbia and designed to provide more reliable annual average estimates for States, was incorporated into the design. In October 1978, a coverage improvement sample, composed of approximately 450 sample household units which represented 237,000 occupied mobile homes and 600,000 new construction housing units, was included in computing the estimates in order to provide coverage of mo-

bile homes and new construction units that previously had no chance for selection in the CPS sample selected from the 1970 census frame. In January 1980, another supplemental sample of 9,000 households selected in 32 States and the District of Columbia was added to the existing sample. A sample reduction of about 6,000 units was implemented in May 1981. Beginning in January 1982, the sample was expanded by 100 households to provide additional coverage in counties added to SMSA's, which were redefined in 1973.

Beginning in 1985, a new State-based CPS sample was selected based on 1980 census information rather than 1970 census information. The selection of new sample areas provided an opportunity to improve the efficiency of the sample design. Sample areas chosen to replace incoming sample areas account for only 10 percent of the national estimate. The new CPS sample has resulted in increased reliability for State estimates with a slightly reduced sample size. The reliability of national estimates is unaffected. Sample households are chosen from 729 sample areas, which represent 1,973 geographic areas in the United States. This current number of sample areas is not completely comparable to the old number of sample areas since many of the sample areas have been redefined. (See pp. 7-10 of the May 1984 issue of *Employment and Earnings*, for an overview of these new definitions and the introduction of the new sample.)

Table A provides a description of some aspects of the CPS sample design in use during the different data collection periods. A more detailed account of the history of the CPS sample design appears in the *Current Population Survey: Design and Methodology*, Technical Paper No. 40, Bureau of the Census, or *Concepts and Methods Used in Labor Force Statistics Derived From the Current Population Survey*, Report 463, Bureau of Labor Statistics.

### ESTIMATING METHODS

Under the estimating methods used in the CPS, all of the results for a given month become available simultaneously and are based on returns from the entire panel of respondents. The estimation procedure involves weighting the data from each sample person by the inverse of the probability of the person being in the sample. This gives a rough measure of the number of actual persons that the sample person represents. Beginning in 1985, almost all sample persons within the same State have the same probability of selection. These estimates are then adjusted for noninterviews, and the ratio estimation procedure is applied.

1. *Noninterview adjustment.* The weights for all interviewed households are adjusted to the extent needed to account for occupied sample households for which no information was obtained because of absence, impassable roads, refusals, or unavailability of the respondents for other reasons. This noninterview adjustment is made separately by combinations of similar sample areas that are not necessarily contained within a State. Similarity of sample areas is based on Metropolitan Statistical Area (MSA) status and size. Within

**Table A. Characteristics of the CPS sample, 1947 to date**

Time period	Number of sample areas	Households eligible		Households visited but not eligible
		Interviewed	Not interviewed	
Aug 1947 to Jan 1954	68	21,000	500-1,000	3,000-3,500
Feb 1954 to Apr 1956	230	21,000	500-1,000	3,000-3,500
May 1956 to Dec 1959	330	33,500	1,500	6,000
Jan. 1960 to Feb 1963	333	33,500	1,500	6,000
Mar 1963 to Dec 1966	357	33,500	1,500	6,000
Jan 1967 to July 1971	449	48,000	2,000	8,500
Aug 1971 to July 1972	449	45,000	2,000	8,000
Aug 1972 to Dec 1977	461	45,000	2,000	8,000
Jan 1978 to Dec 1979	614	53,500	2,500	10,000
Jan. 1980 to Apr 1981	629	62,200	2,800	12,000
May 1981 to Dec 1984	629	57,800	2,500	11,000
Jan 1985 to present	729	57,000	2,500	11,000

<sup>1</sup> Beginning in May 1956, these areas were chosen to provide coverage in each State and the District of Columbia

<sup>2</sup> Three sample areas were added in 1960 to represent Alaska and Hawaii after statehood

each combination of sample areas there is a further breakdown by residence. MSA sample areas are categorized by "central city" and "balance of the MSA". Residence categories of non-MSA areas are "urban" and "rural". The proportion of sample households not interviewed varies from 4 to 5 percent, depending on weather, vacation, etc.

2. *Ratio estimates.* The distribution of the population selected for the sample may differ somewhat, by chance, from that of the population as a whole in such characteristics as age, race, sex, and residence. Since these characteristics are closely correlated with labor force participation and other principal measurements made from the sample, the survey estimates can be substantially improved when weighted appropriately by the known distribution of these population characteristics. This is accomplished through two stages of ratio estimates as follows:

a. *First-stage ratio estimate.* In the CPS, a portion of the 729 sample areas is chosen to represent other areas not in the sample; the remainder of the sample areas represent only themselves. The first-stage ratio estimation procedure was designed to reduce the portion of the variance resulting from requiring sample areas to represent nonsample areas. Therefore, this procedure is not applied to sample areas which represent only themselves. The adjustment is made at the State level for each of the 43 States which contain nonsample areas by race cells of black and non-black. The procedure corrects for differences that existed in each cell at the time of the 1980 census between the race distribution of the population in sample areas and the known race distribution of the State.

b. *Second-stage ratio estimate.* In this stage, the sample proportions of persons in specific categories are adjusted to the distribution of independent current estimates of the civilian noninstitutional population in the same categories. The second-stage ratio adjustment, which is performed to

further reduce variability of the estimates and to correct to some extent for CPS undercoverage relative to the decennial census, is carried out in three steps. In the first step, the sample estimates are adjusted within each State and the District of Columbia to an independent control for the population 16 years and over. The second step involves an adjustment by Hispanic origin to a national estimate for eight age-sex categories by Hispanic and non-Hispanic. In the third step, a national adjustment is made by the race categories of white, black, and other races to independent estimates by age and sex. The white and black categories contain 32 age-sex groups each; the other races category has 6 age-sex cells. The entire second-stage adjustment procedure is iterated six times, each time beginning at the weights developed the previous time. This ensures that the sample estimates of the population for both State and national age-sex race-origin categories will be virtually equal to the independent population control totals. This second-stage adjustment procedure incorporates changes instituted in January 1985. The nature and effect of these changes are discussed in detail in "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1985" in the February 1985 issue of *Employment and Earnings*.

The controls by State for the civilian noninstitutional population 16 years and over are an arithmetic extrapolation of the trend in the growth of this segment of the population using the two most recent July 1 estimates, adjusted as a last step to a current estimate of the U.S. population of this group. State estimates by age for July 1 are published annually in *Current Population Reports*, Series P-25. For a description of the methodology used in developing the State total, see Report 957 of that series. A description of the age estimates methodology is available in Report 1010 of that series.

Prior to January 1985, there was no separate control for Hispanics in the second-stage ratio procedure. These Hispanic controls are prepared by carrying forward the 1980 census count for Hispanics by adding estimated Hispanic births and immigrants and subtracting estimated Hispanic deaths



and emigrants to yield an estimate of the Hispanic population by age and sex.

During the period from January 1982 to December 1984, the "inflation-deflation" method was temporarily discontinued in the preparation of the independent national controls used for the age-sex-race groups in the third step of the second-stage ratio estimation procedure. These controls were prepared by carrying forward the 1980 census data after taking account of subsequent aging of the population, births, deaths, and net migration and then subtracting the estimate for the institutional population and Armed Forces. Beginning in January 1985, the "inflation-deflation" method of deriving independent population controls was reintroduced into the CPS estimation procedure. With the "inflation-deflation" method, the independent controls are prepared by inflating the 1980 census counts to include estimated undercounts by age, sex and race, aging this population forward to each subsequent month and later age by adding births and net migration, and subtracting deaths. These post-censal population estimates are then deflated to census level to reflect the pattern of net undercount in the most recent census by age, sex, and race. Because an estimate of undercount is first added and then subtracted, the size of each race-sex group is unaffected by the "inflation-deflation" method. Similarly, the final estimate is affected only by the age structure of the undercount, but not the level. This feature of the method is important since the exact amount of undercount in the 1980 census remains unknown.

Data on births and deaths between April 1, 1980, and the estimate date are based on tabulations of vital statistics for the resident population made by the National Center for Health Statistics and data on deaths of military personnel overseas from the Department of Defense. Estimates of net civilian immigration are based on data provided by the Immigration and Naturalization Service, the Department of Defense, the Office of Personnel Management, and the Puerto Rico Planning Board. The civilian noninstitutional population is derived by subtracting the Armed Forces and the institutional population for the estimate date from the total including Armed Forces overseas. The institutional population is computed by applying institutional proportions derived from the 1980 census to the total population, including Armed Forces overseas for the estimate date. All computations described above are performed in cells defined by single year of age, race, and sex. The independent national control totals are then obtained by collapsing these cells into broader age groups for the population 16 years and older.

Beginning in January 1986, two changes were introduced into the estimation of the independent population controls. For the first time, an explicit allowance for net undocumented immigration since April 1, 1980 (the census date) was added to the estimated level of legal immigration. In addition, an increase in the estimate of emigration of legal foreign-born residents has been incorporated into the postcensal population estimates since 1980. The nature and effect of these changes are discussed in detail in "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1986" in the February 1986 issue of *Employment and Earnings*.

3. *Composite estimate procedure.* In deriving statistics for a given month, a composite estimating procedure is used which takes account of net changes from the previous month for continuing parts of the sample (75 percent), as well as the sample results for the current month. Also included is an additional term which is an estimate of the net difference between incoming and continuing parts of the current month's sample. Almost all estimates of month-to-month change are improved by this procedure, and most estimates of level are also improved, but to a lesser extent.

### Rounding of estimates

The sums of individual items may not always equal the totals shown in the same tables because of independent rounding of totals and components to the nearest thousand. Similarly, sums of percent distributions may not always equal 100 percent because of rounding. Differences, however, are insignificant.

### Reliability of the estimates

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. The standard errors provided primarily indicate the magnitude of the sampling error. They also partially measure the effect of some nonsampling errors in response and enumeration but do not measure any systematic biases in the data.

*Nonsampling error.* The full extent of nonsampling error is unknown, but special studies have been conducted to quantify some sources of nonsampling error in the CPS, as discussed below. The effect of nonsampling error should be small on estimates of relative change, such as month-to-month change. Estimates of monthly levels would be more severely affected by the nonsampling error.

Nonsampling errors in surveys can be attributed to many sources, e.g., inability to obtain information about all cases in the sample, definitional difficulties, differences in the interpretation of questions, inability or unwillingness of respondents to provide correct information, inability to recall information, errors made in collection such as in recording or coding the data, errors made in processing the data, errors made in estimating values for missing data, and failure to represent all sample households and all persons within sample households (undercoverage).

Nonsampling errors occurring in the interview phase of the survey have been studied by means of a reinterview program. This program is used to estimate various sources of error as well as to evaluate and control the work of the interviewers. A random sample of each interviewer's work is inspected through reinterview at regular intervals. The results indicate, among other things, that the data published from the CPS are subject to moderate systematic biases. A description of the CPS reinterview program and some of the other results may be found in the *Current Population Survey Reinterview Program*,

January 1961 Through December 1966, Technical Paper No. 19, Bureau of the Census, U.S. Department of Commerce.

The effects of some components of nonsampling error in the CPS data can be examined as a result of the rotation plan used for the sample, since the level of the estimates varies by rotation group. A description of these effects appears in "The Effects of Rotation Group Bias on Estimates From Panel Surveys," by Barbara A. Bailer, *Journal of the American Statistical Association*, Volume 70, No. 349, March 1975.

Undercoverage in the CPS results from missed housing units and missed persons within sample households. Compared to the level of the decennial census, undercoverage is about 6 percent. It is known that the CPS undercoverage varies with age, sex, race, and Hispanic origin. Generally, undercoverage is larger for men than for women, and larger for blacks, Hispanics, and other races combined than for whites. Ratio estimation to independent age-sex-race-Hispanic origin population controls, as described previously, partially corrects for the biases due to survey undercoverage. However, biases exist in the estimates to the extent that missed persons in missed households or missed persons in interviewed households have different characteristics than interviewed persons in the same age-sex-race-Hispanic origin group. Further, the independent population controls used have not been adjusted for undercoverage in the 1980 census.

Additional information on nonsampling error in the CPS appears in "An Error Profile: Employment as Measured by the Current Population Survey," by Camilla Brooks and Barbara Bailer, Statistical Policy Working Paper 3, U.S. Department of Commerce, Office of Federal Statistical Policy and Standards; in "The Current Population Survey: An Overview," by Marvin Thompson and Gary Shapiro, *Annals of Economic and Social Measurement*, Vol. 2, April 1973; and in *The Current Population Survey, Design and Methodology*, Technical Paper No. 40, Bureau of the Census, U.S. Department of Commerce. This last document includes a comprehensive discussion of various sources of error and describes attempts to measure them in the CPS.

**Sampling error.** The standard error is primarily a measure of sampling variability, that is, of the variation that occurs by chance because a sample rather than the entire population is surveyed. The sample estimate and its estimated standard error enable one to construct confidence intervals, ranges that would include the average of all possible samples with a known probability. For example, if all possible samples were selected, each of these surveyed under essentially the same general conditions and using the same sample design, and an estimate and its estimated error were calculated from each sample, then:

1. Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.
2. Approximately 90 percent of the intervals from 1.6

standard errors below the estimate to 1.6 standard errors above the estimate would include the average of all possible samples.

3. Approximately 95 percent of the intervals from 2 standard errors below the estimate to 2 standard errors above the estimate would include the average result of all possible samples.

In order to derive standard errors that would be applicable to a large number of estimates and could be prepared at a moderate cost, a number of approximations are required. First, the standard errors in this volume reflect the sample design and estimation procedures in effect prior to the expansions for State estimates. Thus, these standard errors may slightly overstate the standard errors applicable to the present design. Second, instead of computing an individual standard error for each estimate, generalized sets of standard errors are computed for various types of characteristics. This generalization yields more stable estimates of the standard errors. Consequently, the sets of standard errors provided give an indication of the order of magnitude of the standard error of an estimate rather than the precise standard error.

Tables B and C show approximate standard errors for major employment status characteristics for monthly estimates and for changes for consecutive months. These standard errors are applicable to the level of the estimates in recent months.

Tables D through H provide generalized standard errors for monthly level and month-to-month change for estimated totals, unemployment rates, and percentages. Table I contains factors for use with table H for computing standard errors, as described below, for monthly level and month-to-month change for percentages. Standard errors for intermediate values not shown in the table may be approximated by linear interpolation. The standard error for estimated changes from one month to the next is more closely related to the monthly level for the characteristic than to the size of the specific month-to-month change itself. Thus, in order to use the generalized standard errors for month-to-month change as given in the tables of standard errors, it is necessary to obtain the monthly estimate for the characteristic. It should be noted that the tables of standard errors for month-to-month change apply only to estimates of change between 2 consecutive months. Estimates of change for non-consecutive months are subject to higher standard errors. Table J contains factors for use with tables D, F, H, and I to compute approximate standard errors for levels, labor force participation rates, and percentages as pertaining to the year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages, and changes in yearly averages. Note that standard errors for changes in quarterly and yearly estimates apply only to consecutive quarters and years. For years prior to 1967, the standard errors must be adjusted due to the differences in the sample size. For years prior to 1956, the standard errors should be multiplied by 1.50, and for the 1956-66 period they should be multiplied by 1.22. Table K provides generalized standard

**Table B. Standard errors for major employment status categories**

(in thousands)

Employment status, sex, age, and race	Standard error of—	
	Monthly level	Month-to-month change (consecutive months only)
Total, 16 years and over		
Civilian labor force	244	187
Employed	263	200
Unemployed	131	134
Men, 20 years and over		
Civilian labor force	148	127
Employed	162	141
Unemployed	89	91
Women, 20 years and over		
Civilian labor force	189	140
Employed	190	144
Unemployed	82	85
Both sexes, 16 to 19 years		
Civilian labor force	83	91
Employed	86	97
Unemployed	57	63
Black, 16 years and over		
Civilian labor force	82	63
Employed	92	70
Unemployed	65	67
Men, 20 years and over		
Civilian labor force	49	43
Employed	56	50
Unemployed	43	46
Women, 20 years and over		
Civilian labor force	67	44
Employed	67	48
Unemployed	43	46
Both sexes, 16 to 19 years		
Civilian labor force	33	37
Employed	30	34
Unemployed	30	32

errors for quarterly estimates of persons and families for use with the CPS earnings data.

*Standard errors for estimated totals.* Tables D and E provide generalized standard errors for monthly totals and for month-to-month change. The figures given in these tables are to be used for the characteristics as indicated.

*Illustration.* Assume that in a given month the number of persons working a specific number of hours was 12,000,000, an increase of 400,000 over the previous month. Linear interpolation in the second column of table D shows that the standard error on an estimate of 12,000,000 is about 159,000. The 68-percent confidence interval as shown by these data is from 11,841,000 to 12,159,000. Therefore, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. Recall that the standard error of a month-to-month change is primarily dependent on the size of the monthly estimate. Thus, using linear interpolation in the first column of table E, the standard error on a month-to-month change of 400,000, when the monthly level is approximately 12,000,000, is about 118,000.

*Standard errors for rates and percentages.* The reliability of an estimated unemployment rate or an estimated percentage, computed using sample data for both numerator and denominator, depends upon both the size of the rate or percentage and the total upon which the rate or percentage is based. Estimated rates and percentages are relatively more

**Table C. Standard errors for unemployment rates by major characteristics**

Characteristic	Standard error of—		Characteristic	Standard error of—	
	Monthly level	Consecutive-month change		Monthly level	Consecutive-month change
Total (all civilian workers)	0.11	0.12	<b>Occupation—Continued</b>		
Men, 20 years and over	15	15	Precision production, craft, and repair	0.32	0.35
Women, 20 years and over	17	18	Machine operators, assemblers, and inspectors	50	57
Both sexes, 16 to 19 years	65	77	Transportation and material moving	57	64
White workers	11	12	Handlers, equipment cleaners, helpers, and laborers	70	80
Black workers	52	54	Farming, forestry, and fishing	65	73
Married men, spouse present	15	16			
Married women, spouse present	21	23	<b>Industry</b>		
Full-time workers	12	12	Nonagricultural private wage and salary workers	13	14
Part-time workers	34	42	Mining	137	156
Unemployed 15 weeks and over	06	08	Construction	65	74
			Manufacturing	27	30
<b>Occupation</b>			Durable goods	34	38
Executive, administrative, and managerial	21	24	Nondurable goods	42	48
Professional specialty	18	20	Transportation, communications, and public utilities	41	46
Technicians and related support	49	55	Wholesale and retail trade	26	29
Sales	29	32	Finance and services	20	22
Administrative support, including clerical	24	26	Government workers	18	19
Private household	107	120	Agricultural wage and salary workers	122	140
Protective service	67	76			
Service, except private household and protective	38	43			

reliable than the corresponding estimates of the numerator of the rates or percentages; this is particularly true for percentages of 50 percent or more. As a general rule, percentages are not published when the monthly base is less than 75,000, the quarterly average base is less than 60,000, or the annual average base is less than 35,000.

Tables F and G show generalized standard errors for monthly level and month-to-month change for unemployment rates. Generalized standard errors for estimated monthly percentages and estimated month-to-month change in percentage can be obtained through the use of the standard errors in table H and the factors in table I. First, obtain the standard error from table H for the specific percentage and base. The generalized standard error is then calculated by multiplying the standard error from table H by the appropriate factor from table I. When the numerator and denominator of the percentage are in different categories, use the factor indicated by the numerator of the percentage.

**Illustration.** Assume that in a given month 3.6 percent of a total of 90,771,000 employed persons are employed in agriculture. The standard error on an estimate of 3.6 percent with a base of 90,771,000 is obtained from table H (0.09 percent). The appropriate factor from table I for the numerator of the percentage, agricultural employment, is 1.26. The generalized standard error on the estimated 3.6 percent is then approximately  $0.09 \times 1.26 = 0.1$  percentage point.

**Standard errors for year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages, and changes in yearly averages.** The approximate standard errors of levels, rates, and percentages involving year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages, and changes in yearly averages may be obtained by using table J in conjunction with the other tables. Standard errors for estimates of change are more closely related to the level of the estimate than to the size of the specific change. Thus, to obtain the standard error of an estimate of an average level, rate, or percentage, or an estimate of a change in level, rate, or percentage, it is first necessary to find the appropriate estimate of level. For an estimate of an average level, rate, or percentage, find the standard error of this estimate. For an estimate of change in level, rate, or percentage, find the standard error of the average of the two estimates affecting the change. Then, after computing the standard error by treating these estimates as monthly estimates and using the procedures above, multiply this result by a suitable factor from table J to obtain the approximate standard error for the average or change.

**Illustration.** Suppose that one is interested in the year-to-year change of a monthly unemployment rate. Assume that for a certain month the unemployment rate is 6.9 percent, based on a total of 95,676,000 in the civilian labor force, and that

**Table D. Standard errors for estimates of monthly level**

(in thousands)

Estimated monthly level	Characteristic <sup>1</sup>								
	Agricultural employment	Unemployment		Labor force data other than agricultural employment and unemployment					
		Total or white	Black	Total or white	Black	Total or white, 16 to 19 years	Black, 16 to 19 years	Total or white men only, or women only	Black men only, or women only
50	14	11	11	11	11	11	11	10	10
100	19	15	16	15	15	15	15	14	14
500	43	33	35	34	34	33	29	32	31
1,000	61	47	49	48	47	46	33	45	42
2,000	85	66	67	68	64	63	33	63	55
4,000	120	93	88	95	84	80	-	87	65
6,000	146	113	99	116	94	86	-	106	58
8,000	-	129	-	133	97	83	-	120	24
10,000	-	143	-	147	94	70	-	133	24
15,000	-	172	-	177	49	70	-	157	-
20,000	-	195	-	201	49	-	-	174	-
30,000	-	-	-	236	-	-	-	195	-
40,000	-	-	-	261	-	-	-	202	-
50,000	-	-	-	278	-	-	-	196	-
60,000	-	-	-	288	-	-	-	176	-
70,000	-	-	-	293	-	-	-	137	-
80,000	-	-	-	293	-	-	-	137	-
100,000	-	-	-	275	-	-	-	-	-
140,000	-	-	-	231	-	-	-	-	-

<sup>1</sup> When determining the standard error of an estimate for a group which is a subset of the age, sex, or race groups listed, use the standard error for the next larger group, e.g., when determining the standard error

of the estimated number of employed persons age 20 to 54 years, use the column for total employed



**Table E. Standard errors for estimates of month-to-month change**

(in thousands)

Estimated monthly level	Characteristic <sup>1</sup>							
	Unemployment				Labor force data other than unemployment and agricultural employment			
	Total or white	Both sexes 16 to 19 years, or part-time labor force <sup>2</sup>	Black	Black, 16 to 19 years	Total or white	Black	Total or white, 16 to 19 years	Black, 16 to 19 years
50	12	13	12	13	8	8	13	13
100	16	18	17	18	11	11	18	18
500	37	40	38	35	25	25	40	34
1,000	51	54	52	38	36	35	55	36
2,000	72	70	69	-	50	47	74	36
4,000	99	78	85	-	70	62	93	-
6,000	118	60	87	-	86	70	97	-
8,000	132	-	-	-	98	73	90	-
10,000	143	-	-	-	109	71	90	-
15,000	160	-	-	-	131	42	90	-
20,000	165	-	-	-	149	42	-	-
30,000	-	-	-	-	175	-	-	-
40,000	-	-	-	-	194	-	-	-
50,000	-	-	-	-	207	-	-	-
60,000	-	-	-	-	215	-	-	-
70,000	-	-	-	-	219	-	-	-
80,000	-	-	-	-	219	-	-	-
100,000	-	-	-	-	208	-	-	-
140,000	-	-	-	-	179	-	-	-

<sup>1</sup> See footnote 1, table D

<sup>2</sup> Part-time labor force for unemployment also includes persons reentering

the labor force, persons who left their last job, and persons by duration of unemployment

a year prior to this the unemployment rate was 6.1 percent, based on a total of 94,254,000 in the civilian labor force for the month. First, the standard error on the average of the two estimates, 6.5 percent with a base of 94,965,000, is obtained from table F (0.12 percentage point). The appropriate factor, then, from table J is 1.40. The approximate standard error on the change of 0.8 percent is then given by  $0.12 \times 1.40 = 0.17$  percentage point.

The approximate standard error of levels involving year-to-year change of quarterly estimates pertaining to CPS earnings data for persons and families may be obtained by using table K in conjunction with the following formula:

Standard error of year-to-year change =

$$\sqrt{\left(\frac{\text{Standard error}_x}{x}\right)^2 + \left(\frac{\text{Standard error}_y}{y}\right)^2 - 2(P) \left(\frac{\text{Standard error}_x}{x}\right) \left(\frac{\text{Standard error}_y}{y}\right)}$$

X is the estimate for one quarter and Y is the estimate for another quarter. The coefficient, P, is a measure of the corre-

lation between the estimates X and Y resulting from the presence of some of the same respondents in the sample for each estimate. For consecutive year-to-year changes of quarterly estimates, the values of P are 0.30 for persons (total, white, and black) and 0.35 for families (total, white, and black). The respective values for estimates of Hispanics are 0.45 and 0.55.

**Illustration.** Assume that in a given quarter the number of women employed as full-time wage and salary workers was 27,000,000 and in the same quarter a year later, their number had increased to 29,000,000. Using linear interpolation in the eighth column of table K, the standard error of an estimate of 27,000,000 is 216,000; for 29,000,000 it is 221,000. Using the above formula, the standard error of the 2,000,000 year-to-year change is:

$$\sqrt{(216,000)^2 + (221,000)^2 - 2(.30) (216,000) (221,000)}$$

or about 259,000.



**Table F. Standard errors for unemployment rates**

Monthly base of unemployment rate (in thousands)	Monthly unemployment rate (percent)									
	1	2	5	10	15	20	25	30	35	50
50	2.09	2.94	4.57	6.28	7.46	8.34	9.01	9.51	9.87	10.21
100	1.48	2.08	3.23	4.44	5.28	5.90	6.37	6.73	6.98	7.22
500	.66	.93	1.45	1.99	2.36	2.64	2.85	3.01	3.12	3.27
1,000	.47	.66	1.02	1.40	1.67	1.87	2.01	2.13	2.21	2.28
2,000	.33	.46	.72	.99	1.18	1.32	1.42	1.50	1.56	1.61
4,000	.23	.33	.51	.70	.83	.93	1.01	1.06	1.10	1.14
6,000	.19	.27	.42	.57	.68	.76	.82	.87	.90	.93
10,000	.15	.21	.32	.44	.53	.59	.64	.67	.70	.72
20,000	.10	.15	.23	.31	.37	.42	.45	.47	.49	.51
60,000	.06	.08	.13	.18	.21	.24	.26	.27	.27	.29
100,000	.05	.07	.10	.14	.17	.19	.20	.21	.22	.22
140,000	.04	.06	.09	.12	.14	.16	.17	.18	.19	.20

**Table G. Standard errors for month-to-month change in unemployment rates**

Monthly base of unemployment rate (in thousands)	Monthly unemployment rate (percent)									
	1	2	5	10	15	20	25	30	35	50
50	2.32	3.28	5.14	7.18	8.69	9.90	10.93	11.81	12.58	14.38
100	1.64	2.32	3.64	5.08	6.14	7.00	7.12	8.35	8.89	10.17
500	.73	1.04	1.63	2.27	2.74	3.13	3.45	3.73	3.97	4.53
1,000	.52	.73	1.15	1.60	1.94	2.21	2.44	2.63	2.80	3.19
2,000	.37	.52	.81	1.13	1.37	1.56	1.72	1.85	1.97	2.24
4,000	.26	.37	.57	.80	.96	1.10	1.20	1.30	1.38	1.56
6,000	.21	.30	.47	.65	.78	.89	.98	1.05	1.11	1.26
10,000	.16	.23	.36	.50	.60	.68	.75	.80	.85	.94
20,000	.12	.16	.25	.35	.42	.47	.51	.54	.57	-
60,000	.07	.09	.14	.19	.22	.23	.24	-	-	-
100,000	.05	.07	.11	.14	.15	.15	-	-	-	-
140,000	.04	.06	.09	-	-	-	-	-	-	-

**Table H. Standard errors for estimated percentages and month-to-month change in percentages for labor force data**

Monthly base of percentages (in thousands)	Percentage of monthly level									
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	35 or 65	50
50	2.14	3.01	4.69	6.46	7.68	8.61	9.32	9.86	10.27	10.76
100	1.51	2.13	3.32	4.57	5.43	6.09	6.59	6.97	7.26	7.61
500	.68	.95	1.48	2.04	2.43	2.72	2.95	3.12	3.25	3.40
1,000	.48	.67	1.05	1.44	1.72	1.92	2.08	2.21	2.30	2.41
2,000	.34	.48	.74	1.02	1.22	1.36	1.47	1.56	1.62	1.70
4,000	.24	.34	.52	.72	.86	.96	1.04	1.10	1.15	1.20
6,000	.20	.28	.43	.59	.70	.79	.85	.90	.94	.98
10,000	.15	.21	.33	.46	.54	.61	.66	.70	.73	.76
20,000	.11	.15	.23	.32	.38	.43	.47	.49	.51	.54
40,000	.08	.11	.17	.23	.27	.30	.33	.35	.36	.38
60,000	.06	.09	.14	.19	.22	.25	.27	.28	.30	.31
80,000	.05	.08	.12	.16	.19	.22	.23	.25	.26	.27
100,000	.05	.07	.10	.14	.17	.19	.21	.22	.23	.24
160,000	.04	.05	.08	.11	.13	.15	.16	.17	.18	.19

NOTE: The standard errors in this table must be multiplied by the factors in table I to obtain the approximate standard error for a specific characteristic

**Table I. Factors to be used with table H to compute approximate standard errors for percentages and month-to-month change in percentages**

Characteristic	Factor		Characteristic	Factor	
	Monthly level	Month to-month change		Monthly level	Month to-month change
Agricultural employment			Unemployment		
Total or full-time labor force	1 26	1 05	Part-time labor force		
Part-time labor force	1 26	1 50	Part-time labor force: duration of unemployment, lost job, reentering labor force	1 01	1 21
Labor force data other than agricultural employment and unemployment			All other unemployment characteristics		
Total	1 00	74	Total or white		
Men only	93	84	Total	97	1 08
Women only	86	75	Both sexes, 16 to 19 years	97	1 21
Both sexes, 16 to 19 years	1 00	1 18	Black		
Part-time labor force	1 00	1 18	Total	1 04	1 13
			Both sexes, 16 to 19 years	1 04	1 24

**Table J. Factors to be used with tables D, F, H, and I to compute the approximate standard errors for levels, rates, and percentages for year-to-year change of monthly estimates, quarterly averages, change in quarterly averages, yearly averages, and change in yearly averages**

Characteristic	Factor				
	Year-to-year change of monthly estimate	Quarterly averages	Change in quarterly averages	Yearly averages	Change in yearly averages
Agricultural employment:					
Total or men	1 30	0 89	0 80	0 72	0 70
Women or teenagers (16 to 19 years)	1 30	83	80	58	70
Part time	1 40	74	80	46	70
Labor force data other than agricultural employment and unemployment					
Total or white	1 30	88	88	67	70
Black teenagers (16 to 19 years)	1 30	82	88	57	70
Part time	1 40	74	88	46	60
Unemployment					
Total	1 40	76	88	50	65
Part time	1 40	69	88	39	54

**Table K. Standard errors for estimates of quarterly levels, to be used with CPS earnings data**

(In thousands)

Estimated quarterly level	Characteristic								
	Total			Men				Women	
	Part-time workers	Total or full time workers		Part-time workers	Total or full-time workers			Total, full-time, or part-time workers	
		Total or white	Black		Total	White	Black	Total or white	Black
10	5	5	5	5	5	5	5	5	5
50	11	12	12	11	12	12	12	11	11
75	13	15	15	13	15	15	15	13	13
100	15	17	17	15	17	17	17	15	15
150	19	21	21	19	21	21	21	19	19
200	22	24	24	22	24	24	24	22	21
250	24	27	27	24	27	27	27	24	24
300	26	30	30	26	30	30	29	26	26
500	34	38	38	34	38	38	37	34	33
750	42	47	46	42	47	47	45	42	41
1,000	48	54	53	48	54	54	50	48	46
1,500	59	66	63	59	66	66	59	59	56
2,000	68	76	72	68	76	76	65	68	63
2,500	76	85	79	75	84	84	69	75	69
3,000	83	93	85	82	92	92	71	82	74
5,000	107	119	100	105	117	116	64	105	85
7,500	130	145	107	127	140	138	64	127	88
10,000	149	165	102	144	157	155	-	145	-
15,000	180	198	102	187	183	179	-	173	-
20,000	205	224	-	192	199	193	-	195	-
25,000	226	244	-	207	209	199	-	211	-
30,000	224	261	-	219	212	198	-	224	-
40,000	273	286	-	233	201	174	-	242	-
50,000	296	301	-	-	160	100	-	249	-
75,000	331	304	-	-	160	-	-	-	-
100,000	343	255	-	-	-	-	-	-	-

# Establishment Data (Tables B-1 through C-8)

## COLLECTION

Payroll reports provide current information on wage and salary employment and hours and earnings in nonagricultural establishments, by industry and geographic location. Historical statistics are published in *Employment, Hours, and Earnings, United States, 1909-84*, and *Employment, Hours, and Earnings, States and Areas, 1939-82* and their supplements.

### Federal-State cooperation

Under cooperative arrangements, responding establishments report employment, hours, and earnings data to State agencies. State agencies mail the forms to the establishments and examine the returns for consistency, accuracy, and completeness. The States use the reported data to prepare State and area series and also send the reported data to the BLS (Washington Office) for use in preparing the national series. This avoids a duplicate reporting burden on establishments, and, together with the use of similar estimating techniques at the national and State levels, promotes increased comparability between estimates.

### Shuttle schedules

Form BLS 790—Report on Employment, Payroll, and Hours is the name of the data collection schedule. The collection agency returns the schedule to the respondent each month so that the next month's data can be entered on the space allotted for that month. This "shuttle" procedure assures maximum comparability and accuracy of reporting, since the respondent can see the figures that have been reported for previous months.

Form BLS 790 provides for entry of data on the total number of full- and part-time workers on the payrolls of nonagricultural establishments and, for most industries, employment, payroll, and hours of production and related workers or nonsupervisory workers for the pay period which includes the 12th of the month.

## CONCEPTS

### Industrial classification

Establishments reporting on Form BLS 790 are classified into industries on the basis of their principal product or activity determined from information on annual sales volume. Since January 1980, this information is collected on a supplement to the quarterly unemployment insurance tax reports filed by employers. For an establishment making more than one product or engaging in more than one activity, the entire employment of the establishment is included under the

industry indicated by the principal product or activity.

All data on employment, hours, and earnings for the Nation and for States and areas are classified in accordance with the 1972 *Standard Industrial Classification Manual (SICM)*, Office of Management and Budget. The BLS tabulates and estimates statistics which distinguish between private and public establishments, thus maintaining continuity with previously published statistics for the private and government sector.

### Industry employment

Employment data, except those for the Federal Government, refer to persons on establishment payrolls who received pay for any part of the pay period which includes the 12th of the month. For Federal Government establishments, employment figures represent the number of persons who occupied positions on the last day of the calendar month. Intermittent workers are counted if they performed any service during the month.

The data exclude proprietors, the self-employed, unpaid volunteer or family workers, farm workers, and domestic workers. Salaried officers of corporations are included. Government employment covers only civilian employees; military personnel are excluded. Employees of the Central Intelligence Agency and the National Security Agency also are excluded.

Persons on establishment payrolls who are on paid sick leave (when pay is received directly from the firm), on paid holiday, on paid vacation, or who work during a part of the pay period even though they are unemployed or on strike during the rest of the period are counted as employed. Not counted as employed are persons who are on layoff, on leave without pay, on strike for the entire period, or who were hired but have not yet reported during the period.

*Indexes of diffusion of changes in number of employees on nonagricultural payrolls.* These indexes measure the percent of industries which posted increases in employment over the specified time span. The indexes are calculated from 185 seasonally adjusted employment series (two-digit non-manufacturing industries and three-digit manufacturing industries) covering all nonagricultural payroll employment in the private sector. A more detailed discussion of these indexes appears in "Introduction of Diffusion Indexes," in the December issue of *Employment and Earnings*.

### Industry hours and earnings

Average hours and earnings data are derived from reports of payrolls and hours for production and related workers in manufacturing and mining, construction workers in construction, and nonsupervisory employees in private service-producing industries.

*Production and related workers* include working supervisors and all nonsupervisory workers (including group leaders and trainees) engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping, trucking, hauling, maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (e.g., power plant), recordkeeping, and other services closely associated with the above production operations.

*Construction workers* include the following employees in the construction division: Working supervisors, qualified craft workers, mechanics, apprentices, helpers, laborers, etc., engaged in new work, alterations, demolition, repair, maintenance, etc., whether working at the site of construction or working in shops or yards at jobs (such as precutting and preassembling) ordinarily performed by members of the construction trades.

*Nonsupervisory employees* include employees (not above the working supervisory level) such as office and clerical workers, repairers, salespersons, operators, drivers, physicians, lawyers, accountants, nurses, social workers, research aides, teachers, drafters, photographers, beauticians, musicians, restaurant workers, custodial workers, attendants, line installers and repairers, laborers, janitors, guards, and other employees at similar occupational levels whose services are closely associated with those of the employees listed.

*Payroll* covers the payroll for full- and part-time production, construction, or nonsupervisory workers who received pay for any part of the pay period which includes the 12th of the month. The payroll is reported before deductions of any kind, e.g., for old-age and unemployment insurance, group insurance, withholding tax, bonds, or union dues; also included is pay for overtime, holidays, vacation, and sick leave paid directly by the firm. Bonuses (unless earned and paid regularly each pay period); other pay not earned in the pay period reported (e.g., retroactive pay), tips; and the value of free rent, fuel, meals, or other payment in kind are excluded. "Fringe benefits" (such as health and other types of insurance, contributions to retirement, etc., paid by the employer) are also excluded.

*Hours* cover the hours paid for during the pay period which includes the 12th of the month for production, construction, or nonsupervisory workers. Included are hours paid for holidays, vacations, and for sick leave when pay is received directly from the firm.

*Overtime hours* cover hours worked by production or related workers for which overtime premiums were paid because the hours were in excess of the number of hours of either the straight-time workday or the workweek during the pay period which included the 12th of the month. Weekend and holiday hours are included only if overtime premiums were paid. Hours for which only shift differential, hazard, incentive, or other similar types of premiums were paid are excluded.

*Average weekly hours.* The workweek information relates to the average hours for which pay was received and is differ-

ent from standard or scheduled hours. Such factors as unpaid absenteeism, labor turnover, part-time work, and stoppages cause average weekly hours to be lower than scheduled hours of work for an establishment. Group averages further reflect changes in the workweek of component industries.

*Indexes of aggregate weekly hours.* The indexes of aggregate weekly hours are prepared by dividing the current month's aggregate by the average of the 12 monthly figures for 1977. For basic industries, the hours aggregates are the product of average weekly hours and production worker or nonsupervisory worker employment. At all higher levels of industry aggregation, hours aggregates are the sum of the component aggregates.

*Average overtime hours.* The overtime hours represent that portion of the average weekly hours which exceeded regular hours and for which overtime premiums were paid. If an employee were to work on a paid holiday at regular rates, receiving as total compensation his or her holiday pay plus straight-time pay for hours worked that day, no overtime hours would be reported.

Since overtime hours are premium hours by definition, weekly hours and overtime hours do not necessarily move in the same direction from month to month; for example, overtime premiums may be paid for hours in excess of the straight-time workday although less than a full week is worked. Diverse trends at the industry group level also may be caused by a marked change in hours for a component industry where little or no overtime was worked in both the previous and current months. In addition, such factors as work stoppages, absenteeism, and labor turnover may not have the same influence on overtime hours as on average hours.

*Average hourly earnings.* Average hourly earnings are on a "gross" basis. They reflect not only changes in basic hourly and incentive wage rates but also such variable factors as premium pay for overtime and late-shift work and changes in output of workers paid on an incentive plan. They also reflect shifts in the number of employees between relatively high-paid and low-paid work and changes in workers' earnings in individual establishments. Averages for groups and divisions further reflect changes in average hourly earnings for individual industries.

Averages of hourly earnings differ from wage rates. Earnings are the actual return to the worker for a stated period of time; rates are the amount stipulated for a given unit of work or time. The earnings series do not measure the level of total labor costs on the part of the employer since the following are excluded: Irregular bonuses, retroactive items, payment of various welfare benefits, payroll taxes paid by employers, and earnings for those employees not covered under production worker, construction worker, or nonsupervisory employee definitions.

*Average hourly earnings, including lump-sum wage payments.* This series is compiled only for aircraft manufactur-



ing, SIC 3721. The same concepts and estimation methods apply to this series as apply to the average hourly earnings series described above; the one difference between the two series is definitional. The payroll data used to calculate this series include lump-sum payments made to production workers in lieu of general wage rate increases; such payments are excluded from the definition of gross payrolls used to calculate the other average hourly earnings series.

For each sample establishment in SIC 3721 covered by a lump-sum agreement, the reported payroll data are adjusted to include a prorated portion of the lump-sum payment. Such payments are generally made once a year and cover the following 12-month period. In order to spread the payment across this time period, a prorated portion of the payment is added to the payroll each month. This prorated portion is adjusted by an exit rate to reduce the lump-sum amount to account for persons who received the payment but left before the payment allocation period expired.

*Average hourly earnings excluding overtime.* Average hourly earnings, excluding overtime premium pay, are computed by dividing the total production worker payroll for the industry group by the sum of total production worker hours and one-half of total overtime hours. No adjustments are made for other premium payment provisions, such as holiday work, late-shift work, and overtime rates other than time and one-half.

*Railroad hours and earnings.* The figures for Class I railroads (excluding switching and terminal companies) are based on monthly data summarized in the M-300 report of the Interstate Commerce Commission and relate to all employees except executives, officials, and staff assistants (ICC group I) who received pay during the month. Average hourly earnings are computed by dividing total compensation by total hours paid for. Average weekly hours are obtained by dividing the total number of hours paid for, reduced to a weekly basis, by the number of employees, as defined above. Average weekly earnings are derived by multiplying average weekly hours by average hourly earnings.

*Average weekly earnings.* These estimates are derived by multiplying average weekly hours estimates by average hourly earnings estimates. Therefore, weekly earnings are affected not only by changes in average hourly earnings but also by changes in the length of the workweek. Monthly variations in such factors as the proportion of part-time workers, stoppages for varying reasons, labor turnover during the survey period, and absenteeism for which employees are not paid may cause the average workweek to fluctuate.

Long-time trends of average weekly earnings can be affected by structural changes in the makeup of the work force. For example, persistent long-term increases in the proportion of part-time workers in retail trade and many of the services industries have reduced average workweeks in these industries and have affected the average weekly earnings series.

*Real earnings*, or earnings in constant dollars, are calculated from the earnings averages for the current month using a deflator derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

## ESTIMATING METHODS

The principal features of the procedure used to estimate employment for the establishment statistics are (1) the use of the "link relative" technique, which is a form of ratio estimation; (2) periodic adjustment of employment levels to new benchmarks; and (3) the use of size and regional stratification.

### The "link relative" technique

From a sample composed of establishments reporting for both the previous and current months, the ratio of current-month employment to that of the previous month is computed. This is called a "link relative." The estimates of employment (all employees, including production and nonproduction workers together) for the current month are obtained by multiplying the estimates for the previous month by these link relatives. In addition, bias correction factors are applied to selected employment estimates each month. The size of the bias correction factors is determined from past benchmark comparisons. Beginning with data for April 1983, these factors are modified by changes in the sample link relatives for the most recent quarter. Other features of the general procedures are described in table L.

### Size and regional stratification

A number of industries are stratified by size of establishment and/or by region, and the stratified production or non-supervisory worker data are used to weight the hours and earnings for aggregation into broader industry groupings. Accordingly, the basic estimating cell for an employment, hours, or earnings series, as the term is used in the summary of computational methods in table L, may be a whole industry or a size stratum, a region stratum, or a size stratum of a region within an industry.

### Benchmark adjustments

Employment estimates are compared periodically with benchmarks (comprehensive counts of employment) for the various nonagricultural industries, and appropriate adjustments are made as indicated. The industry estimates are currently projected from March 1986 levels. Normally, benchmark adjustments are made annually.

The primary sources of benchmark information are employment data, by industry, compiled quarterly by State agencies from reports of establishments covered under State unemployment insurance laws. These tabulations cover about 98 percent of employees on nonagricultural payrolls in the United States. Benchmark data for the residual are obtained

**Table L. Summary of methods for computing industry statistics on employment, hours, and earnings**

Employment, hours, and earnings	Basic estimating cell (industry, region, size or region/size cell)	Aggregate industry level (division and, where stratified, industry)
Monthly data		
All employees	All-employee estimate for previous month multiplied by ratio of all employees in current month to all employees in previous month, for sample establishments which reported for both months <sup>1</sup>	Sum of all-employee estimates for component cells
Production or nonsupervisory workers, women employees	All-employee estimate for current month multiplied by (1) ratio of production or nonsupervisory workers to all employees in sample establishments for current month, (2) estimated ratio of women to all employees <sup>2</sup>	Sum of production or nonsupervisory worker estimates, or estimates of women employees, for component cells
Average weekly hours	Production or nonsupervisory worker hours divided by number of production or nonsupervisory workers <sup>2</sup>	Average, weighted by production or nonsupervisory worker employment, of the average weekly hours for component cells
Average weekly overtime hours	Production worker overtime hours divided by number of production workers <sup>2</sup>	Average, weighted by production worker employment, of the average weekly overtime hours for component cells
Average hourly earnings	Total production or nonsupervisory worker payroll divided by total production or nonsupervisory worker hours <sup>2</sup>	Average, weighted by aggregate hours, of the average hourly earnings for component cells
Average weekly earnings	Product of average weekly hours and average hourly earnings	Product of average weekly hours and average hourly earnings
Annual average data		
All employees, women employees, and production or nonsupervisory workers	Sum of monthly estimates divided by 12	Sum of monthly estimates divided by 12
Average weekly hours	Annual total of aggregate hours (production or nonsupervisory worker employment multiplied by average weekly hours) divided by annual sum of employment	Annual total of aggregate hours for production or nonsupervisory workers divided by annual sum of employment for these workers
Average weekly overtime hours	Annual total of aggregate overtime hours (production worker employment multiplied by average weekly overtime hours) divided by annual sum of employment	Annual total of aggregate overtime hours for production workers divided by annual sum of employment for these workers
Average hourly earnings	Annual total of aggregate payrolls (product of production or nonsupervisory worker employment by weekly hours and hourly earnings) divided by annual aggregate hours	Annual total of aggregate payrolls divided by annual aggregate hours
Average weekly earnings	Product of average weekly hours and average hourly earnings	Product of average weekly hours and average hourly earnings

<sup>1</sup> The estimates are computed by multiplying the above product by bias adjustment factors, which compensate for the underrepresentation of newly formed enterprises and other sources of bias in the sample

<sup>2</sup> The sample production-worker ratio, women worker ratio, average weekly hours, average overtime hours, and average hourly earnings are modified by

a wedging technique designed to compensate for changes in the sample arising mainly from the voluntary character of the reporting. The wedging procedure accepts the advantage of continuity from the use of the matched sample and, at the same time, tapers or wedges the estimate toward the level of the latest sample average

from the records of the Social Security Administration, the Interstate Commerce Commission, and a number of other agencies in private industry or government.

The estimates for the benchmark month are compared with new benchmark levels, industry by industry. If revisions are necessary, the monthly series of estimates between benchmark periods are adjusted between the new benchmark and the preceding one, and the new benchmark for each industry is then carried forward progressively to the current month by use of the sample trends. Thus, under this procedure, the benchmark is used to establish the level of employment; the sample is used to measure the month-to-month changes in the level. A comparison of the actual amounts of revisions made at the time of the March 1986 benchmark adjustment is shown in table M.

Data for all months since the last benchmark to which the series has been adjusted are subject to revision. Revised data are published as soon as possible after each benchmark revision.

## THE SAMPLE

### Design

The sampling plan used in the establishment survey is known as "sampling proportionate to average size of establishment." This design is an optimum allocation design among strata since the sampling variance is proportional to the average size of establishments. Under this type of design, large establishments fall into the sample with certainty. The size of the sample for the various industries is determined empirically on the basis of experience and of cost considerations. In a manufacturing industry in which a high proportion of total employment is concentrated in relatively few establishments, a larger percent of total employment is included in the sample. Consequently, the sample design for such industries provides for a complete census of the large establishments, with only a few chosen from among the smaller establishments or none at all if the concentration of employment is great enough. On the other hand, in an industry in which a large proportion of total employment is

in small establishments, the sample design calls for inclusion of all large establishments and also for a substantial number of the small ones. Many industries in the trade and services divisions fall into this category. To keep the sample to a size which can be handled by available resources, it is necessary to design samples for these industries with a smaller proportion of universe employment than is the case for most manufacturing industries. Since individual establishments in these nonmanufacturing divisions generally show less fluctuation from regular cyclical or seasonal patterns than do establishments in manufacturing industries, these smaller samples (in terms of employment) generally produce reliable estimates.

In the context of the BLS establishment survey program, with its emphasis on producing timely data at minimum cost, a sample must be obtained which will provide coverage of a sufficiently large segment of the universe to provide reasonably reliable estimates that can be published promptly and regularly. The present sample meets these specifications for most industries. With its use, the BLS is able to produce preliminary estimates each month for many industries and for many geographic levels within a few weeks after the reference period, and, at a somewhat later date, statistics in considerably greater industrial detail.

### Coverage

The BLS sample of establishment employment and payrolls is the largest monthly sampling operation in the field of social statistics. Table N shows the approximate proportion of total employment in each industry division covered by the group of establishments furnishing monthly employment data. The coverage for individual industries within the division may vary from the proportions shown.

**Table N. Approximate size and coverage of BLS employment and payroll sample, March 1986<sup>1</sup>**

Industry	Number of establishments in sample	Employees	
		Number reported	Percent of total
Total . . . . .	249,800	37,762,000	38
Mining . . . . .	3,700	319,000	38
Construction . . . . .	23,100	840,000	19
Manufacturing . . . . .	51,100	10,018,000	53
Transportation and public utilities . . . . .	11,600	2,380,000	46
Wholesale trade . . . . .	21,900	978,000	17
Retail trade . . . . .	42,900	3,352,000	19
Finance, insurance, and real estate . . . . .	17,700	2,135,000	35
Services . . . . .	53,300	5,362,000	24
Government <sup>2</sup> . . . . .			
Federal <sup>2</sup> . . . . .	5,000	2,908,000	100
State . . . . .	4,800	3,194,000	80
Local . . . . .	14,700	6,276,000	62

<sup>1</sup> Since a few establishments do not report payroll and hours information, hours and earnings estimates may be based on a slightly smaller sample than employment estimates.

<sup>2</sup> National estimates of Federal employment by agency are provided to BLS by the Office of Personnel Management. Detailed industry estimates for the Executive Branch, as well as State and area estimates of Federal employment, are based on a sample of 5,000 reports covering about 62 percent of employment in Federal establishments.

**Table M. Comparison of nonagricultural employment benchmarks and estimates for March 1986**

Industry	Benchmark	Estimate	Percent difference
Total . . . . .	98,150	98,617	-0.5
Mining . . . . .	832	842	-1.2
Construction . . . . .	4,415	4,441	-.6
Manufacturing . . . . .	18,945	19,148	-1.1
Transportation and public utilities . . . . .	5,200	5,215	-.3
Wholesale trade . . . . .	5,695	5,803	-1.9
Retail trade . . . . .	17,327	17,418	-.5
Finance, insurance, and real estate . . . . .	6,140	6,144	-.1
Services . . . . .	22,650	22,593	.3
Government . . . . .	16,946	17,013	-.4

<sup>1</sup> Less than 0.05 percent.

## Reliability

Although the relatively large size of the BLS establishment sample assures a high degree of accuracy, the estimates derived from it may differ from the figures that would be obtained if it were possible to take a complete census using the same schedules and procedures. As discussed under the previous section, a link relative technique is used to estimate employment. This requires the use of the previous month's estimate as the base in computing the current month's estimate. Thus, small sampling and response errors may accumulate over several months. To remove this accumulated error, the estimates are usually adjusted annually to new benchmarks. In addition to taking account of sampling and response errors, the benchmark revision adjusts the estimates for changes in the industrial classification of individual establishments (resulting from changes in their product which are not reflected in the levels of estimates until the data are adjusted to new benchmarks). In fact, at the more detailed industry levels, particularly within manufacturing, changes in classification are the major cause of benchmark adjustments. Another cause of differences arises from improvements in the quality of the benchmark data. Table O presents the average percent revisions of the five most recent benchmarks for major industry divisions. Detailed descriptions of individual benchmark revisions are available from the Bureau upon request.

The hours and earnings estimates for basic estimating cells are not subject to benchmark revisions, although the broader groupings may be affected slightly by changes in employment weights. The hours and earnings estimates, however, are subject to sampling errors, which may be expressed as

**Table O. Average benchmark revision in employment estimates and relative errors for average weekly hours and average hourly earnings by industry**

(In percent)

Industry	Average benchmark revision in estimates of employment <sup>1</sup>	Relative error <sup>2</sup>	
		Average weekly hours	Average hourly earnings
Total	0.2	—	—
Total private	3	0.1	0.2
Mining	2.7	1.0	1.3
Construction	1.2	2	5
Manufacturing	7	1	2
Durable goods	8	1	3
Nondurable goods	7	1	2
Transportation and public utilities	4	7	6
Wholesale trade	7	2	4
Retail trade	10	2	4
Finance, insurance, and real estate	2	2	4
Services	2	4	6
Government <sup>3</sup>	4	—	—

<sup>1</sup> The average percent revision in employment for the 1982-86 benchmarks

<sup>2</sup> Relative errors relate to 1982 data

<sup>3</sup> Estimates for government are based on a total count for Federal Government provided by the Office of Personnel Management and a sample of State and local government reports

relative errors of the estimate. (A relative error is a standard error expressed as a percent of the estimate.) Relative errors for major industries are presented in table O and for individual industries with the specified number of employees in table P. The chances are about 2 out of 3 that the hours and earnings estimates from the sample would differ by a smaller percentage than the relative error from the averages that would have been obtained from a complete census.

One measure of the reliability of the employment estimates for individual industries is the root-mean-square error (RMSE). The measure is the standard deviation adjusted for the bias in estimates:

$$RMSE = \sqrt{(\text{standard deviation})^2 + (\text{bias})^2}$$

If the bias is small, the chances are about 2 out of 3 that an estimate from the sample would differ from its benchmark by less than the root-mean-square error. The chances are about 19 out of 20 that the difference would be less than twice the root-mean-square error.

Approximations of the root-mean-square errors (based on the most recent benchmark revisions) of differences between final estimates and benchmarks are presented in table P.

For the two most recent months, estimates of employment, hours, and earnings are preliminary and are so footnoted in the tables. These figures are based on less than the total sample and are revised when all the reports in the sample have been received. Table Q presents root-mean-square errors of the amounts of revisions that may be expected between the preliminary and final levels of employment and preliminary and final month-to-month changes. Revisions of preliminary hours and earnings estimates are normally not greater than 0.1 of an hour for weekly hours and 1 cent for hourly earnings.

## STATISTICS FOR STATES AND AREAS

State and area employment, hours, and earnings data are collected and prepared by State agencies in cooperation with BLS. The area statistics relate to metropolitan areas.

**Table P. Root-mean-square errors of differences between benchmarks and estimates of employment and average relative errors for average weekly hours and average hourly earnings**

Size of employment estimate	Root-mean-square error of employment estimates <sup>1</sup>	Relative error <sup>2</sup> (in percent)	
		Average weekly hours	Average hourly earnings
50,000	2,100	2.2	4.0
100,000	3,900	1.3	2.3
200,000	5,600	1.1	2.0
500,000	14,000	9	1.6
1,000,000	15,000	8	1.2
2,000,000	26,000	5	9

<sup>1</sup> Assuming 12 month intervals between benchmark revisions

<sup>2</sup> Relative errors relate to 1982 data



Definitions for all areas are published each year in the issue of *Employment and Earnings* that contains State and area annual averages (usually the May issue). Changes in definitions are noted at they occur. Additional industry detail may be obtained from the State agencies listed on the inside back cover of each issue. These statistics are based on the same

establishment reports used by BLS for preparing national estimates. For employment, the sum of the State figures may differ slightly from the equivalent official U.S. totals on a national basis, because some States have more recent benchmarks than others and because of the effects of differing industrial and geographic stratification.

**Table Q. Errors of preliminary employment estimates**

Industry	Root-mean-square error of—		Industry	Root-mean-square error of—	
	Monthly level	Month-to-month change		Monthly level	Month-to-month change
Total . . . . .	110,800	104,900	Nondurable goods—Continued		
Total private <sup>1</sup> . . . . .	67,400	61,600	Chemicals and allied products	2,400	2,300
Goods producing . . . . .	29,300	24,100	Petroleum and coal products	1,300	1,300
Mining . . . . .	5,300	5,100	Rubber and misc plastic products	2,100	2,000
Oil and gas extraction . . . . .	4,200	4,100	Leather and leather products	2,300	2,200
Construction . . . . .	18,100	14,000	Service-producing industries	100,500	98,400
General building contractors	6,500	4,900	Transportation and public utilities	15,700	13,800
Manufacturing . . . . .	22,800	22,800	Transportation	18,200	17,400
Durable goods . . . . .	18,500	17,500	Communication and public utilities	6,600	6,200
Lumber and wood products	3,100	2,600	Wholesale trade	9,000	8,000
Furniture and fixtures	2,000	1,800	Durable goods	5,800	5,100
Stone, clay, and glass products	2,200	2,100	Nondurable goods	5,300	4,500
Primary metal industries	6,100	5,900	Retail trade	37,500	34,600
Blast furnaces and basic steel products	4,900	4,600	General merchandise stores	20,700	18,700
Fabricated metal products	3,300	2,900	Food stores	6,400	5,800
Machinery, except electrical	7,200	6,400	Automotive dealers and service stations	3,200	3,000
Electrical and electronic equipment	5,600	6,000	Eating and drinking places	17,600	15,200
Transportation equipment	9,200	8,800	Finance, insurance, and real estate	8,400	7,400
Motor vehicles and equipment	8,100	8,600	Finance	4,500	3,800
Instruments and related products	2,100	2,200	Insurance	3,000	2,300
Miscellaneous manufacturing . .	2,000	2,000	Real estate	4,800	4,100
Nondurable goods . . . . .	9,900	9,500	Services	33,200	30,500
Food and kindred products	6,300	6,400	Business services	12,200	10,800
Tobacco manufactures	1,700	1,600	Health services	10,600	10,400
Textile mill products	2,200	2,300	Government	73,700	68,400
Apparel and other textile products	6,300	5,600	Federal	17,400	11,300
Paper and allied products	1,500	1,300	State	24,600	23,000
Printing and publishing	2,200	2,100	Local	35,200	32,800

NOTE Data are based on differences from December 1981 through December 1986



## Productivity Data (Tables C-9 through C-11)

### COLLECTION

Productivity data are compiled by the Bureau of Labor Statistics from establishment data and from estimates of compensation and gross national product supplied by the U.S. Department of Commerce and the Federal Reserve Board.

### CONCEPTS

*Hours* of wage and salary workers in nonagricultural establishments refer to hours paid for all employees—production workers, nonsupervisory workers, and salaried workers.

*Output* is the constant-dollar market value of final goods and services produced in a given period. Indexes of *output per hour* of all persons measure changes in the volume of goods and services produced per paid hour of labor input.

*Compensation per hour* includes wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. The data also include an estimate of wages, salaries, and supplementary payments for the self-employed, except for nonfinancial corporations, in which there are no self-employed.

*Real compensation per hour* is compensation per hour adjusted to eliminate the effect of changes in the Consumer Price Index for All Urban Consumers (CPI-U).

*Unit labor costs* measure the labor compensation cost required to produce one unit of output and are derived by dividing compensation per hour by output per hour.

*Unit nonlabor payments* include profits, depreciation, interest, and indirect taxes per unit of output. They are com-

puted by subtracting compensation of all persons from the current-dollar gross national product and dividing by output. In these tables, unit nonlabor costs contain all the components of unit nonlabor payments except unit profits.

*Unit profits* include corporate profits and inventory valuation adjustments per unit of output.

The *implicit price deflator* is derived by dividing the current-dollar estimate of gross product by the constant-dollar estimate, making the deflator, in effect, a price index for gross product of the sector reported.

### NOTES ON THE DATA

For the business sector and the nonfarm business sector, these indexes relate to the gross domestic product less households and institutions, owner-occupied housing, and the statistical discrepancy. For the nonfinancial corporate sector, the indexes refer to the gross domestic product of nonfinancial corporate business.

Manufacturing output data are supplied by the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Quarterly measures have been adjusted by the Bureau of Labor Statistics to annual estimates of output (gross product originating) from the Bureau of Economic Analysis. Compensation and hours data are from the Bureau of Economic Analysis and the Bureau of Labor Statistics. Historical statistics for most productivity measures appear in *Trends in Multifactor Productivity, 1948-81*, BLS Bulletin 2178. Additional information may be obtained from the Office of Productivity and Technology (202 523-9261).

## State and Area Labor Force Data (D table)

### FEDERAL-STATE COOPERATIVE PROGRAM

Labor force and unemployment estimates for States, labor market areas (LMA's), and other areas covered under Federal assistance programs are developed by State employment security agencies under a Federal-State cooperative program. The local unemployment estimates which are derived from standardized procedures developed by BLS are the basis of determining eligibility of an area for benefits under Federal programs such as the Job Training Partnership Act and the Public Works and Economic Development Act.

Annual average data for the States and areas shown in table D are published in *Employment and Earnings* (usually the May issue). For regions, States, selected metropolitan areas, and central cities, annual average data classified by selected demographic, social, and economic characteristics are

published in the BLS bulletin, *Geographic Profile of Employment and Unemployment*.

Labor force and unemployment estimates for counties, cities, and other small areas have been prepared for administration of various Federal economic assistance programs and may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The report "Employment and Unemployment in States and Local Areas" is published monthly through GPO and is available on microfiche only on a subscription basis.

### ESTIMATING METHODS

The civilian labor force and unemployment estimates in 11 large States: New York, California, Illinois, Ohio, New Jersey, Pennsylvania, Michigan, Texas, Massachusetts,

North Carolina, and Florida; and two areas: Los Angeles—Long Beach metropolitan area and New York City, are sufficiently reliable to be used directly from the CPS. For a description of the CPS concepts, see "Household Data," above.

Monthly labor force and unemployment estimates in the remaining 39 States, the District of Columbia, and over 2,600 labor market areas are prepared in several stages. The civilian labor force is the sum of the employment and unemployment levels, which are estimated in accordance with the BLS *Manual for Developing Local Area Unemployment Statistics*.

1. *Preliminary estimate—employment:* The total civilian employment estimate is based on data from the survey of establishments which produces an estimate of payroll employment. This place-of-work estimate must be adjusted to refer to place of residence as used in the CPS. Factors for adjusting from place of work to place of residence have been developed for the several categories of employment on the basis of employment relationships which existed at the time of the 1980 decennial census. These factors are applied to the payroll employment estimates for the current period to obtain adjusted employment estimates to which are added estimates for employment not covered by unemployment insurance (UI).

2. *Preliminary estimate—unemployment:* In the current month, the estimate of unemployment is an aggregate of the estimates for each of three categories: (1) Persons who were previously employed in industries covered by State UI laws; (2) those previously employed in industries not covered by these laws; and (3) those who were entering the civilian labor force for the first time or reentering after a period of separation. This is referred to below as the UI-based estimate.

An estimate for those previously employed in covered industries is derived from a count of current employment insurance claimants, plus estimates of claimants whose benefits have been exhausted, those persons disqualified from receiving benefits for nonmonetary reasons (because they quit, were discharged for cause, etc., but would otherwise have been eligible), and persons who either filed claims late or not at all.

The estimate of those previously employed in industries not covered by UI is derived by applying to the employment estimate for each noncovered industry or class of worker subgroup in the State, the ratio of covered unemployment to covered employment weighted by factors reflecting national historical relationships.

For the third category, new entrants and reentrants into the labor force, a composite estimate is developed from equations that relate the total entrants into the labor force to the experienced unemployed and the experienced labor force. For each month, the estimate of entrants into the labor force is a function of: (a) the month of the year; (b) the level of

the experienced unemployed; (c) the level of the experienced labor force; and (d) the proportion of the working age population that is considered "youth."

3. *Monthly reconciliation with the CPS.* Each month correction factors for employment and unemployment are applied at the State level to the UI-based estimates obtained above for each of the 39 States and the District of Columbia. These correction factors are based on the ratio of the CPS to the UI-based estimates for the 6-month period ending in the current month (e.g., a 6-month moving average). The adjustment is necessary because the State-prepared estimates are not as reliable as the CPS data due to differences in the State UI laws, the structural limitations of the UI-based estimating method, and errors in the UI data.

4. *Substate adjustment for additivity.* Independent estimates of employment and unemployment are prepared for the State (obtained directly from the CPS in the 11 large States or by the UI-based method in the remaining States), and labor market areas (LMA's) within the State. The total of the geographic areas in the LMA's exhausts the geographic boundaries of the State. A proportional adjustment is applied to all substate LMA estimates to ensure that the sub-State estimates of employment and unemployment add to the independent State totals. In California and New York, which also have sub-State areas taken directly from the CPS, the additivity adjustment for the remaining areas is applied to the State total minus the direct CPS area.

5. *Benchmark correction procedures.* Once each year, monthly estimates prepared by the State employment security agencies using UI-based estimating procedures are adjusted, or benchmarked, by BLS to the annual average CPS estimates for the 39 States and the District of Columbia for which monthly CPS estimates are not used directly. This adjustment is made because the State-prepared monthly estimates are not as reliable as the CPS annual averages due to the limitations of the 6-month moving average adjustment procedure. Revisions to the inputs used in the UI-based estimates are also made at the time of the annual benchmark.

The State wide benchmarked estimates are produced in three stages. First the monthly UI-based estimates are adjusted by the ratio of the CPS to the UI-based annual averages. Second, the difference between the ratio of annual averages for two consecutive years is wedged into the monthly estimates in order to minimize the disturbance to the original series. Finally, the third-stage estimates are forced into agreement with CPS annual averages. In the 11 States for which CPS estimates are used monthly, no benchmark correction is required, as the average of the 12 monthly State CPS estimates will equal CPS annual averages.

## Seasonal Adjustment

Over the course of a year, the size of the Nation's labor force, the levels of employment and unemployment, and other measures of labor market activity undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make it easier to observe the cyclical and other nonseasonal movements in the series. In evaluating changes in a seasonally adjusted series, it is important to note that seasonal adjustment is merely an approximation based on past experience. Seasonally adjusted estimates have a broader margin of possible error than the original data on which they are based, since they are subject not only to sampling and other errors but are also affected by the uncertainties of the seasonal adjustment process itself. Seasonally adjusted series for selected labor force and establishment-based data are published regularly in *Employment and Earnings*.

The seasonal adjustment program used for these series is an adaptation of the standard ratio-to-moving-average method. It provides for "moving" adjustment factors to take account of changing seasonal patterns. A detailed description of the method is given in *The X-11 Variant of the Census Method II Seasonal Adjustment Program*, Technical Paper No. 15, Bureau of the Census (1967).

Beginning in January 1980, BLS introduced two major modifications in the seasonal adjustment methodology for data from the household survey. First, the data are being seasonally adjusted with a procedure called X-11 ARIMA, which was developed at Statistics Canada as an extension of the existing standard X-11 method. A detailed description of the procedure appears in *The X-11 ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum, Statistics Canada Catalogue No. 12-564E, January 1983. The X-11 procedure was originally developed at the Bureau of the Census and had been used by the BLS to seasonally adjust labor force series since 1973. Tests have shown that use of the X-11 ARIMA procedure, which places more emphasis on recent data, provides better seasonal adjustments than does the X-11 method alone.

The second change is that seasonal adjustment factors are calculated for use during the first 6 months of the year rather than for the entire year. In July of each year, BLS calculates and publishes in *Employment and Earnings* a set of seasonal adjustment factors for use in the second half, based on the experience through June. Revisions of historical data for the most recent 5 years are made at the beginning of each calendar year. However, as a result of the revisions to the estimates for 1970-81 based on 1980 census population counts, revisions to seasonally adjusted series in early 1982 were carried back to 1970.

All labor force and unemployment rate statistics, as well as the major employment and unemployment estimates, are computed by aggregating independently adjusted series. For example, for each of the three major labor force components—agricultural employment, nonagricultural employment, and unemployment—data for four sex-age groups (men and women under and over 20 years of age) are separately adjusted for seasonal variation and are then added to derive seasonally adjusted total figures. The seasonally adjusted figure for the labor force is the sum of eight seasonally adjusted civilian employment components, plus the resident Armed Forces total (not adjusted for seasonality), and four seasonally adjusted unemployment components; the total for unemployment is the sum of the four unemployment components; and the overall unemployment rate is derived by dividing the resulting estimate of total unemployment by the estimate of the labor force. Because of the independent seasonal adjustment of various series, components will not necessarily add to totals.

Revised seasonally adjusted data for selected labor force series based on the experience through December, new seasonal adjustment factors to be used to calculate the civilian unemployment rate for the first 6 months of the following year, and a description of the current seasonal adjustment methodology are published in each January issue of *Employment and Earnings*. Revised seasonally adjusted data covering the revision period for a broader range of labor force series are published in the February issue of this publication.

Beginning in July 1980, the BLS also uses the X-11 ARIMA methodology in seasonally adjusting the establishment data, which previously had been computed using the *BLS Seasonal Factor Method*. All series are seasonally adjusted using the multiplicative models under X-11 ARIMA. Seasonal adjustment factors used in calculating the current year's estimates are based on actual data through March 1987 and projected data through March 1988. The ARIMA model options for projecting the data series for 1 year ahead have been used in seasonally adjusting the establishment series since June 1981.

Seasonal adjustment factors are directly applied to the component levels. Seasonally adjusted totals for most of these series are then obtained by taking a weighted average of the seasonally adjusted data for the component series. Seasonally adjusted average weekly earnings are the product of seasonally adjusted average hourly earnings and seasonally adjusted average weekly hours.

Average weekly earnings in constant dollars, seasonally adjusted, are obtained by dividing average weekly earnings, seasonally adjusted, by the seasonally adjusted Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), and multiplying by 100. Indexes of aggregate weekly hours, seasonally adjusted, are obtained by multiplying average weekly hours, seasonally adjusted, by production

or nonsupervisory workers, seasonally adjusted, and dividing by the 1977 base. For total private, total goods-producing, total private service-producing, wholesale trade, retail trade, manufacturing, and durable and nondurable goods industries, the indexes of aggregate weekly hours, seasonally adjusted, are obtained by summing the aggregate weekly hours, seasonally adjusted, for the appropriate component industries and dividing by the 1977 base.

Seasonally adjusted data are not published for a number of series characterized by small seasonal components relative to their trend-cycle and/or irregular components. These failed or unsatisfactory seasonally adjusted series are used in the aggregation to broader level seasonally adjusted series, however.

Beginning in June 1983, seasonal adjustment factors for Federal Government employment are derived from unadjust-

ed data which include Christmas temporary workers employed by the Postal Service. In earlier years the number of these workers was substantial, and at times varied greatly from year to year, based on administrative decisions of the Postal Service. Hence, it was considered desirable to exclude this group from the unadjusted data upon which the seasonal adjustment factors were based. In the past several years, the number of these workers has decreased to the point where their presence has no impact on seasonal adjustment. Temporary census takers for the 1980 decennial census are removed prior to the calculation of seasonal adjustment factors for Federal Government employment.

The revised seasonally adjusted series for the establishment data reflect experience through March 1987. Seasonal adjustment factors to be used for current adjustment appear in the June 1987 issue of *Employment and Earnings*.



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